

UNITED STATES DISTRICT COURT
DISTRICT OF MASSACHUSETTS
EASTERN DIVISION

JOHN J. VAUGHN, GERALD A.
KALBFLEISCH, MICHAEL HATHAWAY, and
MYRTLE HATHAWAY,

Plaintiffs,

v.

PUTNAM INVESTMENT MANAGEMENT,
LLC and PUTNAM RETAIL MANAGEMENT,
LLP,

Defendants.

Civil Action No. 04-10988-GAO

**APPENDIX 1 TO MEMORANDUM IN SUPPORT OF PLAINTIFFS' MOTION TO
COMPEL DEFENDANTS TO RESPOND TO PLAINTIFFS' FIRST SET OF REQUESTS
FOR THE PRODUCTION OF DOCUMENTS**

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Plaintiffs submit this Appendix to provide the information required by Local Rule 37.1. For the Court's convenience, Plaintiffs group the disputed requests and responses by issue as they appear in Plaintiffs' Memorandum in Support of the Motion to Compel. A summary of Plaintiff's position as to each issue follows at the end of each section. Plaintiffs refer the Court to their Memorandum for a full discussion of Plaintiffs' position on the issues raised.

A. Putnam Has Refused to Provide Documents Within the Discoverable Time Period.

1. Putnam's Documents Are Discoverable Through the Present.

The following requests seek documents created through the present. Putnam wrongfully refuses to produce documents after June 30, 2005.¹

a. The Requests and Responses.

REQUEST FOR PRODUCTION NO. 5:

All documents and tangible things in your possession, custody, or control relevant to establishing the total amounts of Management Fees, Portfolio Selection Fees, and 12b-1 Fees that PIM, PRM, or other affiliated Putnam entities have received from each of The Funds at any and all times during the Damages Period.

RESPONSE TO REQUEST FOR PRODUCTION NO. 5:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is overly vague, broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. For example, it is inappropriate and inefficient to seek the information at issue (concerning total fees) through a sweeping document request for "[a]ll documents ... relevant to establishing" that information; an interrogatory is the proper device for such information, and then only to the extent properly discoverable. Further,

¹ The Appendix is organized by issue. Each section includes the requests that relate to that issue. Therefore, some requests appear in more than one section.

even if it were appropriate to seek the information at issue through a document request, this request, as drafted, is overly broad and unduly burdensome, including to the extent that it purports to seek "[a]ll" documents "relevant to establishing" the information at issue (concerning total fees), rather than documents sufficient to provide that information.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the "black books" containing information relevant to the trustees' evaluation of management and distribution fees (which contain information responsive to this request). Defendants will also produce the Form 485's for the funds at issue filed during the period January 1, 2002 to June 30, 2005 (which also contain information responsive to this request).

REQUEST FOR PRODUCTION NO.6:

All documents and tangible things in your possession, custody, or control relevant to establishing the total profits and profit margins that PIM, PRM, or other affiliated Putnam entities have realized in connection with the Management Fees, Portfolio Selection Fees, and 12b-1 Fees that they have received from each of The Funds at any and all times during the Damages Period.

RESPONSE TO REQUEST FOR PRODUCTION NO.6:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. For example, it is inappropriate and inefficient to seek the information at issue through a sweeping document request for "[a]ll documents ... relevant to establishing" that information; an interrogatory is the proper device for

such information, and then only to the extent properly discoverable. Further, even if it were appropriate to seek the information at issue through a document request, this request, as drafted, is overly broad and unduly burdensome, including to the extent that it purports to seek "[a]ll" documents "relevant to establishing" the information at issue (concerning profits), rather than documents sufficient to provide that information.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the "black books" collecting information relevant to the trustees' evaluation of management and distribution fees (which contain information responsive to this request), as well as Operations Finance Department documents relating to those communications (including e-mail concerning preparation of such communications, and data generated or reviewed in connection with such communications).

REQUEST FOR PRODUCTION NO. 7:

All documents and tangible things in your possession, custody, or control relevant to establishing the total costs, expenses, and expense ratios that PIM, PRM, or other affiliated Putnam entities have incurred in connection with all services and/or resources that they have provided in exchange for the Management Fees, Portfolio Selection Fees, and 12b-1 Fees that they have received from each of The Funds at any and all times during the Damages Period.

RESPONSE TO REQUEST FOR PRODUCTION NO. 7:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. For example, it is inappropriate and

inefficient to seek the information at issue through a sweeping document request for “[a]ll documents...relevant to establishing” that information; an interrogatory is the proper device for such information, and then only to the extent properly discoverable. Further, even if it were appropriate to seek the information at issue through a document request, this request, as drafted, is overly broad and unduly burdensome, including to the extent that it purports to seek “[a]ll” documents “relevant to establishing” the information at issue (concerning costs), rather than documents sufficient to provide that information.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the "black books" collecting information relevant to the trustees' evaluation of management and distribution fees (which contain information responsive to this request), as well as Operations Finance Department documents relating to those communications (including e-mail concerning preparation of such communications, and data generated or reviewed in connection with such communications).

REQUEST FOR PRODUCTION NO. 8:

All documents and tangible things in your possession, custody, or control relevant to identifying each of the various types of services and/or resources that PIM, PRM, or other Putnam entities have provided in exchange for the Management Fees, Portfolio Selection Fees, and 12b-1 Fees that they have received from any of the Putnam Mutual Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 8:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, and, to an extreme degree, overly broad, unduly

burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. As drafted, this request potentially implicates nearly any document in Defendants' possession, because most if not all such documents would aid in identifying "each of the various types of services and/or resources" Defendants provide to the funds. Further, it is inappropriate and inefficient to seek the information at issue through a sweeping document request for "[a]ll documents . . . relevant to establishing" that information; an interrogatory is the proper device for such information, and then only to the extent properly discoverable. Further, even if it were appropriate to seek the information at issue through a document request, this request, as drafted, is overly broad and unduly burdensome, including to the extent that it purports to seek "[a]ll" documents "relevant to establishing" the information at issue (concerning types of services provided in exchange for fees), rather than documents sufficient to provide that information.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the "black books" collecting information relevant to the trustees' review of management and distribution fees (which contain information responsive to this request).

REQUEST FOR PRODUCTION NO. 9:

All documents and tangible things in your possession, custody, or control relevant to unbundling the Management Fees, Portfolio Selection Fees, and 12b-1 Fees that PIM, PRM, or other affiliated Putnam entities have received from any of the Putnam Mutual Funds into their component portions corresponding to each of the various types of services and/or resources that they have provided to The Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 9:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague and ambiguous, particularly in its reference to "unbundling" the referenced types of fees into "their component portions corresponding" to "services and/or resources"; the vagueness is compounded by the request's demand for "[a]ll" documents "relevant" to that abstract concept.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the "black books" collecting information relevant to the trustees' evaluation of management and distribution fees (which contain information responsive to this request), as well as Operations Finance Department documents relating to those communications (including e-mail concerning preparation of such communications, and data generated or reviewed in connection with such communications).

REQUEST FOR PRODUCTION NO. 10:

With respect to each of the unbundled component portions of the Management Fees, Portfolio Selection Fees, and 12b-1 Fees referenced above in Request For Production No. 9, all documents and tangible things in your possession, custody, or control relevant to establishing the amounts that PIM, PRM, or other affiliated Putnam entities have received from each of The Funds at any and all times during the Damages Period.

RESPONSE TO REQUEST FOR PRODUCTION NO. 10:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that, for the reasons stated in their response to Request No. 9, which is incorporated herein, it is vague and ambiguous.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the "black books" collecting information relevant to the trustees' evaluation of management and distribution fees (which contain information responsive to this request), as well as Operations Finance Department documents relating to those communications (including e-mail concerning preparation of such communications, and data generated or reviewed in connection with such communications).

REQUEST FOR PRODUCTION NO. 11:

With respect to each of the unbundled component portions of the Management Fees, Portfolio Selection Fees, and 12b-1 Fees referenced above in Request For Production No. 9, all documents and tangible things in your possession, custody, or control relevant to establishing the profits and profit margins that PIM, PRM, or other affiliated Putnam entities have realized from each of The Funds at any and all times during the Damages Period.

RESPONSE TO REQUEST FOR PRODUCTION NO. 11:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that, for the reasons stated in their response to Request No. 9, which is incorporated herein, it is vague and ambiguous.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the "black books" collecting information relevant to the trustees' evaluation of management and distribution fees (which contain information responsive to this request), as well

as Operations Finance Department documents relating to those communications (including e-mail concerning preparation of such communications, and data generated or reviewed in connection with such communications).

REQUEST FOR PRODUCTION NO. 12:

All documents and tangible things in your possession, custody, or control relevant to establishing the costs, expenses, and expense ratios that PIM, PRM, or other affiliated Putnam entities have incurred with respect to each of the various types of services and/or resources that they have provided in exchange for the Management Fees, Portfolio Selection Fees, and 12b-1 Fees that they have received from each of the Funds at any and all times during the Damages Period.

RESPONSE TO REQUEST FOR PRODUCTION NO. 12:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is duplicative of Request No. 7. (Defendants note here, as in their general objections, the lack of care with which these 141 requests were prepared, and object to the resulting undue and unnecessary burden on Defendants.) Subject to and without waiving the foregoing objections, Defendants refer to, and incorporate herein, their objections and response to Request No. 7.

REQUEST FOR PRODUCTION NO. 13:

All documents and tangible things in your possession, custody, or control relevant to establishing what dispositions or uses, and in what amounts, PIM, PRM, or other affiliated Putnam entities have made of all portions of the Management Fees and 12b-1 Fees that they have received from each of The Funds at any and all times during the Damages Period.

RESPONSE TO REQUEST FOR PRODUCTION NO. 13:

See General Objections, which are incorporated herein. Defendants further object to this

request on the basis that it is substantively duplicative of Request Nos. 7 and 8. Subject to and without waiving the foregoing objections, Defendants refer to, and incorporate herein, their objections and responses to Request Nos. 7 and 8.

REQUEST FOR PRODUCTION NO. 18:

All documents and tangible things in your possession, custody, or control that concern, refer, or relate to the issues of whether there have been, should be, or may be any increases, reductions, curtailments, or eliminations of any portion of the Management Fees and/or 12b-1 Fees charged to any of the Putnam Mutual Funds by PIM, PRM, or other affiliated Putnam entities.

RESPONSE TO REQUEST FOR PRODUCTION NO. 18:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. For example, “[a]ll documents” that “relate” to whether management and/or 12b-1 fees “should be” lower is a request that improperly seeks to place on Defendants the burden of attempting to subjectively determine what specific documents, of a sweeping array of potential categories and types of documents, spanning an unlimited period of time and implicating an array of aspects of Defendants’ business and activities, Plaintiffs’s counsel and their expert(s) might find useful in attempting to prove the claims in this case.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005 (including the “black books” collecting information relevant to the trustees’ review of

management and distribution fees), as well as Operations Finance Department documents relating to those communications (including e-mail concerning preparation of such communications, and data generated or reviewed in connection with such communications). This is a broad and substantive category of core documents, and Plaintiffs' counsel and their expert(s) should review and understand these documents, and in the future, on the basis of the extensive non-public information in these documents and analysis of that information, propound requests for specific, concrete categories of documents, for which they can offer a good-faith justification.

REQUEST FOR PRODUCTION NO. 20:

All documents and tangible things in your possession, custody, or control that concern, refer, or relate to the issues of if, whether, how, or in what amounts PRM or other affiliated Putnam entities profit, benefit, or save on expenses by virtue of receiving 12b-1 Fees from any of the Putnam Mutual Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 20:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence; it is not at all clear what documents this confusing request seeks.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the "black books" collecting information relevant to the trustees' review of management and distribution fees (which contain information concerning profits), as well as --

for that same period -- any documents addressing benefits to the defendants of 12b-1 fees.

REQUEST FOR PRODUCTION NO. 21:

All documents and tangible things in your possession, custody, or control that concern, refer, or relate to the issues of whether the nature or amounts of Management Fees that PIM has charged to any of the Putnam Mutual Funds are advisable, legal, appropriate, proper, fair, justified, or warranted.

RESPONSE TO REQUEST FOR PRODUCTION NO. 21:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. For example, “[a]ll documents” that “relate to” whether Putnam management fees are “appropriate” is a request which improperly seeks to place on Defendants the burden of attempting to subjectively determine what specific documents Plaintiffs' counsel and their expert(s) might find useful in attempting to prove the claims in this case, out of a broad array of potential categories and types of documents, spanning an unlimited period of time.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the “black books” collecting information relevant to the trustees’ review of the appropriateness of management and distribution fees.

REQUEST FOR PRODUCTION NO. 22:

All documents and tangible things in your possession, custody, or control that concern, refer, or relate to the issues of whether the nature or amounts of Management Fees that PIM has

charged to any of the Putnam Mutual Funds are excessive, unfair, harmful, detrimental, disadvantageous, or contrary to the interests or welfare of any of the Putnam Mutual Funds or their shareholders.

RESPONSE TO REQUEST FOR PRODUCTION NO. 22:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is substantively duplicative of Request No. 21. Subject to and without waiving the foregoing objections, Defendants refer to, and incorporate herein, their objections and response to Request No. 21.

REQUEST FOR PRODUCTION NO. 29:

All documents and tangible things in your possession, custody, or control that constitute or concern any annual financial statements (audited and unaudited) of PIM, PRM, or any of The Funds covering any and all times from January 1, 2000 to the present including, but not limited to, income statements; balance sheets; statements of cash flows; statements of operations; all footnotes relating thereto; all cost allocation policies or procedures relating thereto; and all underlying source materials, supporting materials, and back-up materials considered or relied upon in generating such documents, including ledgers and sub-ledgers.

RESPONSE TO REQUEST FOR PRODUCTION NO. 29:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense, particularly in its demand for all documents that “concern” annual financial statements. Defendants further object to this request to the extent that it seeks publicly-available documents.

Subject to and without waiving the foregoing objections, Defendants will produce, as to

each of the funds at issue, all Form 485s, Form N-30Ds, and Form N-CSRs filed in the period January 1, 2002 to June 30, 2005. As to PIM and PRM, Defendants will also produce, only under an appropriate confidentiality order, the Putnam financial statements contained in the "black books" provided to the trustees during the period January 1, 2002 to June 30, 2005. Defendants will also produce, only under an appropriate confidentiality order, the trial balance entries as to the consolidated Putnam results, and as to (individually) PIM, PRM, and PFTC, for years 2001, 2002, 2003, and 2004.

REQUEST FOR PRODUCTION NO. 30:

All documents and tangible things in your possession, custody, or control that constitute or concern any monthly or quarterly financial statements (audited and unaudited) of PIM, PRM, or any of The Funds covering any and all times during the Damages Period including, but not limited to, income statements; balance sheets; statements of cash flows; statements of operations; all footnotes relating thereto; all cost allocation policies or procedures relating thereto; and all underlying source materials, supporting materials, and back-up materials considered or relied upon in generating such documents, including ledgers and sub-ledgers.

RESPONSE TO REQUEST FOR PRODUCTION NO. 30:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense, particularly in its demand for all documents that "concern" monthly or quarterly financial statements.

Subject to and without waiving the foregoing objections, Defendants will produce the Form N-30D and Form N-CSRs during the period January 1, 2002 through June 30, 2005 (which contain financial statements and are filed on a semiannual basis). Defendants will also produce, only

under an appropriate confidentiality order, the trial balance entries as to the consolidated Putnam results, and as to (individually) PIM, PRM, and PFTC, for years 2001, 2002, 2003, and 2004.

REQUEST FOR PRODUCTION NO. 31:

All documents and tangible things in your possession, custody, or control that constitute or concern any annual financial statements (audited and unaudited) of any parent or affiliate entities whose financial results include the results of PIM or PRM covering any and all times from January 1, 2000 to the present including, but not limited to, income statements; balance sheets; statements of cash flows; statements of operations; all footnotes relating thereto; and all underlying source materials, supporting materials, and back-up materials considered or relied upon in generating such documents.

RESPONSE TO REQUEST FOR PRODUCTION NO. 31:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense, particularly in its demand for all documents that “concern” annual financial statements. Defendants further object to this request to the extent that it seeks publicly-available documents.

Subject to and without waiving the foregoing objections, Defendants will produce all Form 10-Ks for Marsh & McLennan Companies, Inc. filed during the period January 1, 2002 to June 30, 2005.

REQUEST FOR PRODUCTION NO. 32:

All documents and tangible things in your possession, custody, or control that constitute or concern any monthly or quarterly financial statements (audited and unaudited) of any parent or affiliate entities whose financial results include the results of PIM or PRM covering any and

all times during the Damages Period including, but not limited to, income statements; balance sheets; statements of cash flows; statements of operations; all footnotes relating thereto; and all underlying source materials, supporting materials, and back-up materials considered or relied upon in generating such documents.

RESPONSE TO REQUEST FOR PRODUCTION NO. 32:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense, particularly in its demand for all documents that “concern” monthly or quarterly financial statements. Defendants further object to this request to the extent that it seeks publicly available documents.

Subject to and without waiving the foregoing objections, Defendants will produce all Form 10-Qs for Marsh & McLennan Companies, Inc. filed during the period January 1, 2002 to June 30, 2005.

REQUEST FOR PRODUCTION NO. 34:

All documents and tangible things in your possession, custody, or control sufficient to identify all accounts other than The Funds that have been serviced by any Portfolio Leader or Portfolio Member of any of the Investment Management Teams for any of The Funds at any and all times during the Damages Period.

RESPONSE TO REQUEST FOR PRODUCTION NO. 34:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. For example, it is inappropriate and inefficient for Plaintiffs to seek the information at issue (identification of particular accounts) through a

document request; an interrogatory is the proper device for such information, and then only to the extent properly discoverable.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their free-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the “black books” collecting information relevant to the trustees’ review of management and distribution fees (which contain information responsive to this request). Defendants will also produce, for each fund at issue, all Forms 485s, Form N-30Ds, and Form N-CSR filed during the period of January 1, 2002 to June 30, 2005 (which contain information identifying the investment management team of each fund).

REQUEST FOR PRODUCTION NO. 42:

All documents and tangible things in your possession, custody, or control that concern, refer to, or address the existence, substance, merits, or outcomes of either of the Illinois Actions, the above-captioned action, or the Complaint filed herein.

RESPONSE TO REQUEST FOR PRODUCTION NO. 42:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense. Defendants further object to this request on the basis that it is squarely directed at information that is attorney-client privileged and/or attorney work product, much of which is communications between Defendants and undersigned counsel (including such communications in relation to this very lawsuit).

REQUEST FOR PRODUCTION NO. 43:

All documents and tangible things in your possession, custody, or control that concern, refer to, or address any of the requirements or standards imposed by Section 36(b) of the Investment Company Act of 1940, 15 U.S.C. § 80a 35(b), or by Rule 12b-1 promulgated under that Act, 15 U.S.C. § 80a-12(b), 17 C.F.R. § 270.12b-1.

RESPONSE TO REQUEST FOR PRODUCTION NO. 43:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense, particularly in its demand for all documents that “concern” the requirements and standards of 15 U.S.C. § 80a-35(b), which is an improper attempt to shift to the Defendants the burden of identifying specific categories of documents relevant to plaintiffs' claim and theories.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005 (including the “black books” collecting information relevant to the trustees’ review of management and distribution fees), as well as Operations Finance Department documents relating to those communications (including e-mail concerning preparation of such communications, and data generated or reviewed in connection with such communications). Defendants will also produce, to the extent located after diligent search (and to the extent not privileged), all documents generated during the period January 1, 2002 to June 30, 2005 addressing the requirements of 15 U.S.C. § 80a-35(b).

REQUEST FOR PRODUCTION NO. 44:

All documents and tangible things in your possession, custody, or control that concern,

refer to, or address the issues of if; whether, how, or to what extent PIM has complied, should comply, or may comply with any of the requirements or standards imposed by Section 36(b) of the Investment Company Act of 1940, 15 U.S.C. § 80a-35(b).

RESPONSE TO REQUEST FOR PRODUCTION NO. 44:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense, particularly in its demand for all documents that “concern” the requirements and standards of 15 U.S.C. § 80a-35(b), which is an improper effort to shift to the Defendants the Plaintiffs’ burden of identifying specific categories of documents relevant to their claims and theories.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005 (including the “black books” collecting information relevant to the trustees' review of management and distribution fees), as well as Operations Finance Department documents relating to those communications (including e-mail concerning preparation of such communications, and data generated or reviewed in connection with such communications). Defendants will also produce, to the extent located after diligent search (and to the extent not privileged), all documents generated during the period January 1, 2002 to June 30, 2005 addressing the requirements of 15 U.S.C. § 80a-35(b).

REQUEST FOR PRODUCTION NO. 45:

All documents and tangible things in your possession, custody, or control that concern, refer to, or address the issues of if, whether, how, or to what extent PRM, other affiliated Putnam

entities, and/or any of the Distribution Plans adopted by any of the Putnam Mutual Funds has complied, should comply, or may comply with any of the requirements or standards imposed by Rule 12b-1 of the Investment Company Act of 1940, 15 U.S.C. §80a-12(b), 17 C.F.R. §270.12b-1.

RESPONSE TO REQUEST FOR PRODUCTION NO. 45:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense, particularly in its demand for all documents that “concern” the requirements or standards imposed by 5 U.S.C. § 80a-12(b), 17 C.F.R. § 270.121)-1, which is an improper effort to shift to the Defendants the Plaintiffs’ burden of identifying specific categories of documents relevant to their claims and theories.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005 (including the “black books” collecting information relevant to the trustees’ review of management and distribution fees), as well as Operations Finance Department documents relating to those communications (including e-mail concerning preparation of such communications, and data generated or reviewed in connection with such communications). Defendants will also produce, to the extent located after diligent search (and to the extent not privileged), all documents generated during the period January 1, 2002 to June 30, 2005 addressing the requirements of Rule 12b-1 of the Investment Company Act of 1940, 15 U.S.C. § 80a-12(b), 17 C.F.R. §270.12b-1.

REQUEST FOR PRODUCTION NO. 48:

All documents and tangible things in your possession, custody, or control relevant to establishing the portfolio holdings (on a daily or other periodic basis) and/or the portfolio turnover rates of each of The Funds at any and all times during the Damages Period.

RESPONSE TO REQUEST FOR PRODUCTION NO. 48:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense; for example, all documents “relevant to establishing” the portfolio holdings and turnover rates for each of the funds at issue over a multi-year period of time is a category of documents that could conceivably encompass any document bearing in any way on the holdings of any of the funds at issue (including daily trading records). As drafted, this request seeks a massive volume of documents, without any showing by plaintiffs as to the relevance of the information contained in such documents, or as to their need to obtain whatever information they seek by this request by some less burdensome means.

Subject to and without waiving the foregoing objections, Defendants will produce all Form N30Ds and Form N-CSRs for the funds at issue filed during the period January 1, 2002 to June 30, 2005 (these forms are filed twice annually, and each of them specifies the portfolio holdings and portfolio turnover rates of the relevant fund as of the date stated therein).

REQUEST FOR PRODUCTION NO. 50:

All documents and tangible things in your possession, custody, or control that concern, refer to, or address the investment performance or returns of any of The Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 50:

See General Objections, which are incorporated herein. Defendants further object to this

request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense. As drafted, this request seeks any document relating in any way to the performance of each of the funds at issue in this case, over an unlimited period of time; that request is patently unreasonable.

Subject to and without waiving the foregoing objections, Defendants will produce all Form 485s, Form N-30Ds, and Form N-CSRs for the funds at issue filed during the period January 1, 2002 to June 30, 2005; Defendants will also produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005 (including the "black books" collecting information relevant to the trustees' review of management and distribution fees). Defendants will also produce, for the same period of time, (i) the monthly PIM updates to the Trustees Investment Oversight Committees concerning investment performance of the funds at issue, and (ii) information produced by PIM to the Trustees' Investment Oversight Committees in connection with the trustees' periodic additional reviews of the performance of particular funds, to the extent such review related to the funds at issue.

REQUEST FOR PRODUCTION NO. 54:

All documents and tangible things in your possession, custody, or control that reflect, concern, refer, or relate to any decision or agreement made by PIM and/or PRM to waive fees and reimburse expenses of any of The Funds through at least July 31, 2005 to the extent necessary to ensure that any of The Funds' expenses do not exceed the average expenses of other funds viewed by Lipper, Inc. as having the same investment classification or objective of any of The Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 54:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

Subject to and without waiving the foregoing objections, and only subject to an appropriate confidentiality order, Defendants will produce responsive communications between PIM and/or PRM, on the one hand, and the trustees, on the other hand, from January 1, 2002 to June 30, 2005, to the extent located after diligent search. Defendants will also produce, for that same period of time, Operations Finance Department documents concerning this waiver (for example, e-mails within Operations Finance Department concerning this waiver, and e-mail received by Operations Finance Department concerning this waiver).

REQUEST FOR PRODUCTION NO. 55:

All documents and tangible things in your possession, custody, or control sufficient to establish the amounts of Putnam-related compensation of any type (including cash and non-cash forms of compensation) earned or received by each of the members of the Investment Management Teams and the Boards of Trustees for each of the Funds at any and all times from January 1, 2002 to the present.

RESPONSE TO REQUEST FOR PRODUCTION NO. 55:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. For example, it is inappropriate and inefficient for Plaintiffs to seek the type of information at issue through a sweeping document request for “[a]ll documents ... sufficient to establish” that information; an interrogatory is the proper device for such information, and then only to the extent the information is properly discoverable. Further,

there is no basis for Plaintiffs to demand (as they appear to demand) information concerning compensation on a person-by-person basis.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the "black books" collecting information relevant to the trustees' review of management and distribution fees, and Defendant will also produce all Form 485s for the funds at issue filed during the period January 1, 2002 to June 30, 2005. (Both categories of documents contain information responsive to this request.)

REQUEST FOR PRODUCTION NO. 56:

All documents and tangible things in your possession, custody, or control that reflect, concern, refer, or relate to any decision or agreement made by PIM and/or PRM effective as of January 1, 2004 to cease directing brokerage to broker-dealers in connection with the sale of fund shares.

RESPONSE TO REQUEST FOR PRODUCTION NO. 56:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

Subject to and without waiving the foregoing objections, and only subject to an appropriate confidentiality order, Defendants will produce January 1, 2002-to-June 30, 2005 communications about the referenced decision between one or both of the Defendants, on the one hand, and the trustees, on the other hand, to the extent located after diligent search.

REQUEST FOR PRODUCTION NO. 58:

All documents and tangible things in your possession, custody, or control that constitute, reflect, or concern any investment policies, investment objectives, investment classifications, and/or investment restrictions applicable to each of The Funds at any and all times during the Damages Period.

RESPONSE TO REQUEST FOR PRODUCTION NO. 58:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

Subject to and without waiving the foregoing objections, Defendants will produce the Form 485s for each of the funds at issue filed during the period January 1, 2002 to June 30, 2005 (which contain detailed information concerning each fund's investment objectives and strategies).

REQUEST FOR PRODUCTION NO. 59:

All documents and tangible things in your possession, custody, or control that constitute, reflect or concern any policies relating to the practice of simultaneously servicing multiple accounts that have been applicable to any member of any Investment. Management Team for any of the Putnam Mutual Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 59:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague and ambiguous.

REQUEST FOR PRODUCTION NO. 60:

All documents and tangible things in your possession, custody, or control that constitute, reflect, or concern any policies, practices, or procedures relating to trade allocations and/or to "cross-trading" among or between Putnam-advised accounts.

RESPONSE TO REQUEST FOR PRODUCTION NO. 60:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

Subject to and without waiving the foregoing objections, and only subject to an appropriate confidentiality order, Defendants will produce trade allocation procedures for the period January 1, 2002 to June 30, 2005 applicable to the funds at issue.

REQUEST FOR PRODUCTION NO. 64:

All documents and tangible things in your possession, custody, or control that constitute non-publicly issued financial reports prepared by, or on behalf of, any Putnam entity that concern or relate to the provision of management and/or investment advisory services to any of The Funds. Such financial reports might be expected to include, for example, calculations, assessments, itemizations, reviews, cost benefit analyses, or other summarizations of PIM's costs and expenses incurred, income and revenues received, and/or profits realized.

RESPONSE TO REQUEST FOR PRODUCTION NO. 64:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, and, to an extreme degree, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense. For example, it is not limited as to time, and its "limitation" as to subject matter -- reports that "concern or relate to the provision of management and/or investment advisory services" -- is vague and, in the context of this case, which involves entities that provide such services, essentially meaningless as a limitation.

Subject to and without waiving the foregoing objections, Defendants refer Plaintiffs to,

and incorporate herein, their responses to Request Nos. 29, 30, 31, and 32.

REQUEST FOR PRODUCTION NO. 65:

All documents and tangible things in your possession, custody, or control relevant to identifying, and establishing the amounts of, each of the various types of monies, fees, and/or reimbursable expenses *other than Management Fees or 12b-1 Fees* that PIM, PRM, or other affiliated Putnam entities have received from any of The Funds at any and all times during the Damages Period.

RESPONSE TO REQUEST FOR PRODUCTION NO. 65:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. For example, it is inappropriate, and extraordinarily inefficient, for Plaintiffs to seek the information at issue through a sweeping document request for “[a]ll documents...relevant to...establishing” that information; an interrogatory is the proper device for such information, and then only to the extent properly discoverable; further, even if it were appropriate to seek the information at issue through a document request, this request, as drafted, is overly broad and unduly burdensome, including to the extent that it purports to seek “[a]ll” documents “relevant to establishing” the information at issue (concerning the amounts of certain fees), rather than documents sufficient to provide that information.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the “black books” collecting information relevant to the trustees' review of

management and distribution fees.

REQUEST FOR PRODUCTION NO. 66:

All documents and tangible things in your possession, custody, or control relevant to establishing the profits and profit margins that PIM, PRM, or other affiliated Putnam entities have realized in connection with each of the various types of monies, fees, and/or reimbursable expenses *other than Management Fees or 12b-1 Fees* that they have received from any of The Funds at any and all times during the Damages Period.

RESPONSE TO REQUEST FOR PRODUCTION NO. 66:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. For example, it is inappropriate, and extraordinarily inefficient, for Plaintiffs to seek the straightforward information at issue through a sweeping document request for “[a]ll documents ... relevant to establishing” that information; an interrogatory is the proper device for such information, and then only to the extent properly discoverable; further, even if it were appropriate to seek the information at issue through a document request, this request, as drafted, is overly broad and unduly burdensome, including to the extent that it purports to seek “[a]ll” documents “relevant to establishing” the information at issue (concerning profits), rather than documents sufficient to provide that information.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the "black books" collecting information relevant to the trustees' review of management and distribution fees.

REQUEST FOR PRODUCTION NO. 67:

All documents and tangible things in your possession, custody, or control relevant to establishing the costs, expenses, and expense ratios that PIM, PRM, or other affiliated Putnam entities have incurred in connection with each of the services and/or resources that they have provided in exchange for the various types of monies, fees, and/or reimbursable expenses *other than Management Fees or 12b-1 Fees* that they have received from any of The Funds at any and all times during the Damages Period.

RESPONSE TO REQUEST FOR PRODUCTION NO. 67:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. For example, it is inappropriate, and extraordinarily inefficient, for Plaintiffs to seek the straightforward information at issue through a sweeping document request for “[a]ll documents ... relevant to establishing” that information; an interrogatory is the proper device for such information, and then only to the extent properly discoverable; further, even if it were appropriate to seek the information at issue through a document request, this request, as drafted, is overly broad and unduly burdensome, including to the extent that it purports to seek “[a]ll” documents “relevant to establishing” the information at issue (concerning costs), rather than documents sufficient to provide that information.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the “black books” collecting information relevant to the trustees’ review of management and distribution fees.

REQUEST FOR PRODUCTION NO. 68:

All documents and tangible things in your possession, custody, or control relevant to establishing what other persons or entities were paid monies, and in what amounts, by PIM and/or PRM in connection with their provision of services to The Funds at any and all times during the Damages Period.

RESPONSE TO REQUEST FOR PRODUCTION NO. 68:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague and ambiguous; read literally, it appears to seek all documents in any way relevant to establishing the identity of every third party to which Defendants have made any payment at any time during the “Damages Period.” If that is what this request seeks, it is senseless, and insupportable; if the request seeks something else, Defendants cannot determine what that is, on the basis of the text of the request, as drafted.

REQUEST FOR PRODUCTION NO. 69:

All documents and tangible things in your possession, custody, or control relevant to identifying, and establishing the amounts of, each of the various types of costs and expenses that each of The Funds incurred at any and all times during the Damages Period *other than from their payments of Management Fees or 12b-1 Fees* including, but not limited to, investor servicing fee expenses; custodian fee expenses; trustee compensation costs and expenses; administrative services expenses; and/or any other types of costs or expenses.

RESPONSE TO REQUEST FOR PRODUCTION NO. 69:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. For example, it is inappropriate and inefficient for Plaintiffs to seek the information at issue through a sweeping document request for “[a]ll

documents ... relevant to establishing” that information; an interrogatory is the proper device for such information, and then only to the extent properly discoverable; further, even if it were appropriate to seek the information at issue through a document request, this request, as drafted, is overly broad and unduly burdensome, including to the extent that it purports to seek “[a]ll” documents “relevant to ... establishing” the information at issue (concerning costs and expenses of the funds at issue), rather than documents sufficient to provide that information.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the “black books” collecting information relevant to the trustees’ review of management and distribution fees.

REQUEST FOR PRODUCTION NO. 70:

All documents and tangible things in your possession, custody, or control relevant to identifying each of the various types of services and/or resources that were provided to each of The Funds at any and all times during the Damages Period in exchange for the various types of monies, fees, and/or reimbursable expenses other than Management Fees or 12b-1 Fees that were paid by any of The Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 70:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. For example, it is inappropriate and inefficient for Plaintiffs to seek the information at issue through a sweeping document request for “[a]ll documents ... relevant to identifying” that information; an interrogatory is the proper

device for such information, and then only to the extent properly discoverable; further, even if it were appropriate to seek the information at issue through a document request, this request, as drafted, is overly broad and unduly burdensome, including to the extent that it purports to seek “[a]ll” documents “relevant to ... identifying” the information at issue (concerning all services and resources provided to the funds at issue), rather than documents sufficient to provide that information.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the “black books” collecting information relevant to the trustees’ review of management and distribution fees.

REQUEST FOR PRODUCTION NO. 71:

All documents and tangible things in your possession, custody, or control relevant to identifying and establishing the persons or entities who received payments from any of The Funds, and in what amounts, in connection with the various types of costs and expenses that The Funds incurred at any and all times during the Damages Period other than from their payments of Management Fees or 12b-1 Fees.

RESPONSE TO REQUEST FOR PRODUCTION NO. 71:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their

fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the “black books” collecting information relevant to the trustees’ review of management and distribution fees.

REQUEST FOR PRODUCTION NO. 72:

All documents and tangible things in your possession, custody, or control that constitute the minutes or notes of each meeting of any of the Boards of Trustees, or of their Boards of Trustees Committees, for any of The Funds held at any time from January 1, 2002 to the present.

RESPONSE TO REQUEST FOR PRODUCTION NO. 72:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense. Defendants further object to this request on the basis that it is properly directed to counsel for the trustees, not to Defendants.

Subject to an without waiving the foregoing objections, Defendants will produce, to the extent located after diligent search (and to the extent in their possession, custody, or control), minutes of trustee meetings concerning management and/or 12b-1 fees, for the period January 1, 2002 to June 30, 2005.

REQUEST FOR PRODUCTION NO. 73:

All documents and tangible things in your possession, custody, or control that constitute materials shown or provided to, and/or considered by, any of the Boards of Trustees, or their Boards of Trustees Committees, for any of The Funds in connection with any of their meetings held at any time from January 1, 2002 to the present.

RESPONSE TO REQUEST FOR PRODUCTION NO. 73:

See General Objections, which are incorporated herein. Defendants further object to this

request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense (including to the extent that it seeks certain communications, without any specification of the subject matter of such communications).

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the “black books” collecting information relevant to the trustees’ review of management and distribution fees.

REQUEST FOR PRODUCTION NO. 75:

All documents and tangible things in your possession, custody, or control that constitute, reflect, concern, refer, or relate to any negotiations, bargaining, or communications relating to any actual or proposed Management Fees, Management Contracts, 12b-1 Fees, or Distribution Plans among or between PIM, PRM, or other affiliated Putnam entities, and any of the Boards of Trustees, or their Boards of Trustees Committees, for any of The Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 75:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the “black books” collecting information relevant to the trustees’ review of

management and distribution fees. Defendants will also produce the minutes referenced in their response to Request No. 72.

REQUEST FOR PRODUCTION NO. 76:

All documents and tangible things in your possession, custody, or control that reflect, concern, refer, or relate to any consideration given by any of the Boards of Trustees, or their Boards of Trustees Committees, to the issue of whether or not to approve any actual or proposed Management Contract or Distribution Plan for any of The Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 76:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the “black books” collecting information relevant to the trustees’ review of management and distribution fees. Defendants will also produce the minutes referenced in their response to Request No. 72.

REQUEST FOR PRODUCTION NO. 77:

All documents and tangible things in your possession, custody, or control that constitute or reflect any information or materials provided to, and/or reviewed by, any of the Boards of Trustees, or their Boards of Trustees Committees, in connection with their consideration of whether or not to approve any actual or proposed Management Contract or Distribution Plan for any of The Funds. Such documents and tangible things should include, but not be limited to,

those that constitute or reflect information or materials furnished pursuant to § 15(c) of the Investment Company Act of 1940.

RESPONSE TO REQUEST FOR PRODUCTION NO. 77:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the “black books” collecting information relevant to the trustees’ review of management and distribution fees.

REQUEST FOR PRODUCTION NO. 78:

All documents and tangible things in your possession, custody, or control that constitute, reflect, concern, refer, or relate to any criteria or policies used by any of the Boards of Trustees, or their Boards of Trustees Committees, in connection with their consideration of whether or not to approve any actual or proposed Management Contract or Distribution Plan for any of The Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 78:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their

fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the “black books” collecting information relevant to the trustees’ review of management and distribution fees.

REQUEST FOR PRODUCTION NO. 79:

All documents and tangible things in your possession, custody, or control that constitute, reflect, concern, refer, or relate to any suggestion, opinion, conclusion, or proposal about potentially withholding approval of any Management Contract or Distribution Plan for any of the Putnam Mutual Funds by any of the Boards of Trustees, or by their Boards of Trustees Committees.

RESPONSE TO REQUEST FOR PRODUCTION NO. 79:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the “black books” collecting information relevant to the trustees' review of management and distribution fees.

REQUEST FOR PRODUCTION NO. 80:

All documents and tangible things in your possession, custody, or control that reflect, concern, refer, or relate to any consideration given by any of the Boards of Trustees, or their Boards of Trustees Committees, to terminating any Management Contract and/or Distribution Plan existing between any of the Putnam Mutual Funds and PIM or PRM.

RESPONSE TO REQUEST FOR PRODUCTION NO. 80:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the “black books” collecting information relevant to the trustees’ review of management and distribution fees.

REQUEST FOR PRODUCTION NO. 81:

All documents and tangible things in your possession, custody, or control that reflect, concern, refer, or relate to any consideration given by any of the Boards of Trustees, or their Boards of Trustees Committees, to permitting, directing or obligating any of the Putnam Mutual Funds to pay Management Fees and/or 12b-1 Fees to any entities other than PIM or PRM.

RESPONSE TO REQUEST FOR PRODUCTION NO. 81:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the “black books” collecting information relevant to the trustees’ review of management and distribution fees.

REQUEST FOR PRODUCTION NO. 82:

All documents and tangible things in your possession, custody, or control that reflect, concern, refer, or relate to any consideration given by any of the Boards of Trustees, or their Boards of Trustees Committees, to the requirements or standards imposed by Section 36(b) of the Investment Company Act of 1940 or Rule 12b-1 promulgated thereunder, and/or to the issues of whether PIM, PRM, or other affiliated Putnam entities have acted in compliance therewith in relation to any Management Contract or Distribution Plan with any of the Putnam Mutual Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 82:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the “black books” collecting information relevant to the trustees’ review of management and distribution fees.

REQUEST FOR PRODUCTION NO. 83:

All documents and tangible things in your possession, custody, or control that constitute or reflect any information or materials concerning Management Fees or 12b-1 Fee charged by entities other than PIM or PRM that have been shown or provided to, and/or considered by, any of the Boards of Trustees, or their Boards of Trustees Committees, for any of the Putnam Mutual Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 83:

See General Objections, which are incorporated herein. Defendants further object to this

request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the “black books” collecting information relevant to the trustees' review of management and distribution fees (which category of documents encompasses the category of documents sought by this request).

REQUEST FOR PRODUCTION NO. 84:

All documents and tangible things in your possession, custody, or control that constitute or reflect any information or materials concerning PAC that have been shown or provided to, and/or considered by, any of the Board of Trustees, or their Board of Trustees Committees, for any of the Putnam Mutual Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 84:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense (including in its demand for all information shown to the trustees concerning PAC, without any further subject-matter or temporal qualification).

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the “black books” collecting information relevant to the trustees' review of

management and distribution fees (which include information concerning PAC, as it relates to the trustees' review of management and distribution fees).

REQUEST FOR PRODUCTION NO. 85:

All documents and tangible things in your possession, custody, or control that constitute or reflect any information or materials concerning the status, activities, investment performance or returns, or expense ratios of any of The Funds that have been shown or provided to, and/or considered by, any of the Boards of Trustees, or their Boards of Trustees Committees.

RESPONSE TO REQUEST FOR PRODUCTION NO. 85:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense (including in its request for a vague category if “information” shown to the trustees concerning the funds at issue, without any temporal limitation).

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the “black books” collecting information relevant to the trustees’ review of management and distribution fees, and Defendants will also produce, for the same period of time, (i) the monthly PIM updates to the Trustees Investment Oversight Committees concerning investment performance of the funds at issue, and (ii) information produced by PIM to the Trustees' Investment Oversight Committees in connection with the trustees’ periodic additional reviews of the performance of particular funds, to the extent such review related to the funds at issue.

REQUEST FOR PRODUCTION NO. 86:

All documents and tangible things in your possession, custody, or control that reflect, concern, refer, or relate to any consideration given by any of the Boards of Trustees, or their Boards of Trustees Committees, in deciding whether or not to approve any actual or proposed Management Contract for any of The Funds to the factors for assessing the reasonableness of Management Fees established in *Gartenberg v. Merrill Lynch Asset Management, Inc.*, 694 F.2d 923 (2d Cir. 1982) and its progeny. These factors include the following: (i) sharing of economies [sic] of scale benefit; (ii) comparisons to other relevant fee structures; (iii) the nature and quality of services provided; (iv) the profitability of The Funds to PIM and its affiliates; (v) the receipt of other Fall-Out Benefits or indirect profits; and (vi) the independence and conscientiousness of the Trustees.

RESPONSE TO REQUEST FOR PRODUCTION NO. 86:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the “black books” collecting information relevant to the trustees’ review of management and distribution fees.

REQUEST FOR PRODUCTION NO. 87:

All documents and tangible things in your possession, custody, or control that reflect, concern, refer, or relate to any consideration given by any of the Boards of Trustees, or their Boards of Trustees Committees, for any of the Putnam Mutual Funds to articles written by critics

of the alleged disparity between retail and institutional fee schedules, to articles by the ICI or others defending such fee differences, and/or to decisions of the courts providing guidance with respect to such issues.

RESPONSE TO REQUEST FOR PRODUCTION NO. 87:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce responsive documents located after diligent search as to the period January 1, 2002 to June 30, 2005.

REQUEST FOR PRODUCTION NO. 88:

All documents and tangible things in your possession, custody, or control that concern, refer, or relate to the issues of if, whether, how, or to what extent Economies of Scale Benefits and/or Fall-Out Benefits exist in the mutual fund industry relative to the provision of services in connection with Management Contracts and/or Distribution Plans.

RESPONSE TO REQUEST FOR PRODUCTION NO. 88:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense; for example, all documents that “concern” or “relate” to “whether” there are economies of scale and/or fall-out benefits in the mutual fund industry is a vague and outrageously overbroad category, which in effect purports to place on Defendants the burden of making subjective judgments as to what categories of documents plaintiffs’ counsel and their expert(s) may view as

bearing on these issues.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005 (including the “black books” collecting information relevant to the trustees’ review of management and distribution fees), as well as Operations Finance Department documents relating to those communications (including e-mail concerning preparation of such communications, and data generated or reviewed in connection with such communications). (These documents contain economies of scale discussion and analysis.) Defendants will also produce, for that same period of time, all documents otherwise addressing economies of scale benefits and/or fall-out benefits as they relate to management fees, to the extent located after diligent search.

REQUEST FOR PRODUCTION NO. 89:

All documents and tangible things in your possession, custody, or control that concern, refer, or relate to the issues of if, whether, how, or to what extent Economies of Scale Benefits and/or Fall-Out Benefits have been, are, could be, or should be shared as between providers of services in connection with Management Contracts and/or Distribution Plans on the one hand, and mutual funds or their shareholders on the other hand.

RESPONSE TO REQUEST FOR PRODUCTION NO. 89:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense; for example, all documents that “concern” or “relate” to “if” there are economies of scale and/or

fall-out benefits in the mutual fund industry and “whether they have been” or “should be” “shared” is a vague and outrageously overbroad category, which in effect purports to place on Defendants the burden of making subjective judgments as to which categories of documents and types of documents plaintiffs' counsel and their expert(s) may view as bearing on those legal issues.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005 (including the “black books” collecting information relevant to the trustees’ review of management and distribution fees), as well as Operations Finance Department documents relating to those communications (including e-mail concerning preparation of such communications, and data generated or reviewed in connection with such communications). (These documents contain economies of scale discussion and analysis.) Defendants will also produce, for that same period of time, all documents otherwise addressing economies of scale benefits and/or fall-out benefits as they relate to management fees, to the extent located after diligent search.

REQUEST FOR PRODUCTION NO. 90:

All documents and tangible things in your possession, custody, or control that concern, refer, or relate to the issues of if, whether, how, or to what extent PIM, PRM, and/or other affiliated Putnam entities realize Economies of Scale Benefits and/or Fall-Out Benefits in connection with their provision of any services or resources to any of the Putnam Mutual Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 90:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably

calculated to lead to the discovery of admissible evidence relevant to any claim or defense; for example, all documents that “concern” or “relate” to whether Defendants realize economies of scale and/or fall-out benefits is a vague and hugely overbroad category, which in effect purports to place on Defendants the burden of making subjective judgments as to which categories of documents plaintiffs’ counsel and their expert(s) may view as bearing on the broad issues of economies of scale and fall out benefits.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005 (including the “black books” collecting information relevant to the trustees' review of management and distribution fees), as well as Operations Finance Department documents relating to those communications (including e-mail concerning preparation of such communications, and data generated or reviewed in connection with such communications). Defendants will also produce, for that same period of time, all documents otherwise addressing economies of scale benefits and/or fall-out benefits as they relate to management fees, to the extent located after diligent search.

REQUEST FOR PRODUCTION NO. 91:

All documents and tangible things in your possession, custody, or control that concern, refer, or relate to the issues of if, whether, how, or to what extent PIM, PRM, and/or other affiliated Putnam entities share with any of the Putnam Mutual Funds any Economies of Scale Benefits and/or Fall-Out Benefits they realize in connection with their provision of any services or resources to any of the Putnam Mutual Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 91:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense; for example, all documents that “concern” or “relate” to whether Defendants “share” any economies of scale and/or fall-out benefits is a vague and overbroad category, which purports to place on Defendants the burden of making subjective judgments as to which categories of documents may bear on those matters.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005 (including the “black books” collecting information relevant to the trustees' review of management and distribution fees), as well as Operations Finance Department documents relating to those communications (including e-mail concerning preparation of such communications, and data generated or reviewed in connection with such communications). Defendants will also produce, for that same period of time, all documents otherwise addressing economies of scale benefits and/or fall-out benefits as they relate to management fees, to the extent located after diligent search.

REQUEST FOR PRODUCTION NO. 92:

All documents and tangible things in your possession, custody, or control that constitute, reflect, or concern any quantification of Economies of Scale Benefits and/or Fall-Out Benefits that PIM, PRM, and/or other affiliated Putnam entities realize in connection with their provision of any services or resources to any of the Putnam Mutual Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 92:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense. Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, all documents generated during the period. January 1, 2002 to June 30, 2005 containing numerical analysis of economies of scale, including their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005 (including the “black books” collecting information relevant to the trustees’ review of management and distribution fees).

REQUEST FOR PRODUCTION NO. 93:

All documents and tangible things in your possession, custody, or control that concern, refer, or relate to the issues of whether PIM, PRM, or other affiliated Putnam entities have failed to share any Economies of Scale Benefits and/or Fall-Out Benefits with any of the Putnam Mutual Funds to a degree that has been inequitable, unfair, harmful, detrimental, disadvantageous, or contrary to the interests or welfare of any of the Putnam Mutual Funds or their shareholders.

RESPONSE TO REQUEST FOR PRODUCTION NO. 93:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense; for example, all documents that “concern” or “relate” to whether Defendants “have failed to share” any economies of scale and/or fall-out benefits to an “inequitable” degree is a vague, overbroad and argumentative category, which purports to place on Defendants the burden of making

subjective judgments as to which categories of documents might bear on those matters, even though that burden is properly borne by plaintiffs' counsel and their expert(s).

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005 (including the "black books" collecting information relevant to the trustees' review of management and distribution fees), as well as Operations Finance Department documents relating to those communications (including e-mail concerning preparation of such communications, and data generated or reviewed in connection with such communications). Defendants will also produce, for that same period of time, all documents otherwise addressing economies of scale benefits and/or fall-out benefits as they relate to management fees, to the extent located after diligent search.

REQUEST FOR PRODUCTION NO. 94:

All documents and tangible things in your possession, custody, or control that constitute, reflect, concern, refer, or relate to any model schedules for Management Fees developed by, or on behalf of, PIM, PRM, and/or any of the Boards of Trustees, or their Boards of Trustees Committees, for any of the Putnam Mutual Funds, including any earlier versions, drafts, or proposals of or for such model fee schedules.

RESPONSE TO REQUEST FOR PRODUCTION NO. 94:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence.

Subject to and without waiving the foregoing objections, and only under an appropriate

confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the “black books” collecting information relevant to the trustees’ evaluation of management and distribution fees (which contain information responsive to this request).

REQUEST FOR PRODUCTION NO. 95:

All documents and tangible things in your possession, custody, or control that reflect, concern, or relate to any comparisons or contrasts drawn between the concepts of investment performance on the one hand, and investment process on the other hand, including investment process as it relates to research and/or decision-making.

RESPONSE TO REQUEST FOR PRODUCTION NO. 95:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague and ambiguous; Defendants do not understand what documents this request seeks.

Subject to and without waiving the foregoing objections, Defendants will produce, to the extent located after diligent search, all documents generated from January 1, 2002 through June 30, 2005 comparing and/or contrasting “investment performance,” on the one hand, and “investment process,” on the other hand.

REQUEST FOR PRODUCTION NO. 98:

All documents and tangible things in your possession, custody, or control that constitute, reflect, concern, refer, or relate to any policies, practices, or procedures that have been or may be followed by PIM, PRM, or other affiliated Putnam entities with regard to making disclosures to shareholders and/or to the public regarding any Management Fees and/or 12b-1 Fees charged to any Putnam Mutual Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 98:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

REQUEST FOR PRODUCTION NO. 101:

All documents and tangible things in your possession, custody, or control that constitute, reflect, concern, refer, or relate to each of the fee schedules for Management Fees and/or for 12b-1 Fees that PIM, PRM, or other affiliated Putnam entities have proposed or furnished to each of The Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 101:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense; all documents that “refer” or “relate” to fee schedules is a category that is difficult to understand, and, read literally, sweepingly overbroad (it appears to call for every document in any way relating to fees).

Subject to and without waiving the foregoing objections, Defendants will produce the fee schedules applicable to each of the funds at issue during the period May 18, 2003 through June 30, 2005.

REQUEST FOR PRODUCTION NO. 102:

All documents and tangible things in your possession, custody, or control that concern, refer, or relate to the development or formulation of each of the fee schedules for Management Fees and/or for 12b-1 Fees that PIM, PRM, or other affiliated Putnam entities have proposed or furnished to each of The Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 102:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005 (including the “black books” collecting information relevant to the trustees’ review of management and distribution fees), as well as Operations Finance Department documents relating to those communications (including e-mail concerning preparation of such communications, and data generated or reviewed in connection with such communications).

REQUEST FOR PRODUCTION NO. 103:

All documents and tangible things in your possession, custody, or control relevant to identifying, and/or establishing the amounts of, any Management Fees or 12b-1 Fees that PIM or PRM have received from any entity other than any of the Putnam Mutual Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 103:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague and ambiguous, and, to the extent comprehensible, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

Subject to and without waiving the foregoing objections, Defendants will produce documents sufficient to identify, for the January 1, 2002-through-June 30, 2005 period of time, any management and/or 12b-1 fees that PIM and/or PRM have received from any entity other

than the Putnam Mutual Funds.

REQUEST FOR PRODUCTION NO. 104:

All documents and tangible things in your possession, custody, or control relevant to establishing on an annualized basis relative to each of The Funds for each of the years of their existence: (i) their respective portfolio holdings; (ii) the amounts of their assets under management; (iii) the amounts of their Management Fees and 12b-1 Fees paid; (iv) their applicable fee schedules; (v) the costs, expenses, and expense ratios incurred by PIM, PRM, or other affiliated Putnam entities; and (vi) the profits and profit margins realized by PIM, PRM, or other affiliated Putnam entities.

RESPONSE TO REQUEST FOR PRODUCTION NO. 104:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense. Defendants further object to this request on the basis that it is duplicative of other requests, listed below, the objections to each of which Defendants incorporate herein by reference. Subject to and without waiving the foregoing objections, Defendants refer Plaintiffs to, and incorporate herein by reference, their substantive responses to the following requests:

- As to subpart (i), Request Nos. 47, 48, 131;
- As to subpart (ii), Request Nos. 47, 48, 131;
- As to subpart (iii), Request Nos. 5, 6, 26, 54;
- As to subpart (iv), Request Nos. 94, 101, 102, 111;
- As to subpart (v), Request Nos. 7, 12, 25, 67, 85, 109; and

- As to subpart (vi), Request Nos. 6, 11, 20, 24, 27, 64, 66, 86, 111, 136, 138.

REQUEST FOR PRODUCTION NO. 106:

All documents and tangible things in your possession, custody, or control that constitute, reflect, concern, refer, or relate to any policies, practices, or procedures applicable to, and or adopted or followed by, PIM with respect to seeking and obtaining the most favorable prices and execution of trades on behalf of any of the Putnam Mutual Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 106:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense, particularly in its use of the words “reflect,” “concern,” “refer” or “relate.” It is not sensible to ask PIM and PRM for, in effect, “all documents relating to best execution,” which is a fundamental part of their day-to-day business, implicating a sweeping array of individuals and documents (even day-to-day trading records). Such a request, like many others, improperly seeks to shift the burden to Defendants to identify particular categories of documents that Plaintiffs might find useful in attempting to prove their claims, when Plaintiffs are obligated to develop and articulate those categories themselves (and are capable of doing so). As with other areas of inquiry identified in plaintiffs’ requests, Defendants would respond, as appropriate, to a more narrowly-tailored, specifically-articulated request or set of requests concerning best execution.

REQUEST FOR PRODUCTION NO. 107:

All documents and tangible things in your possession, custody, or control that constitute, reflect, concern, refer, or relate to the drafting, revising, and/or inclusion of: (i) the new passage entitled “Management fee considerations” that recently began to appear on Putnam’s web site;

and/or (ii) the new standard passages entitled “Trustee approval of management contracts” that recently began to appear in, *inter alia*, the semiannual reports published on behalf of some or all of the Putnam Mutual Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 107:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense. Defendants understand what public statements plaintiffs refer to in this request, but do not understand what plaintiffs seek, in requesting all documents that “reflect, concern, refer or relate” to them.

Subject to and without waiving the foregoing objections, however, Defendants will produce copies of the statements themselves, and, to the extent located after diligent search, the following materials, which constitute the documentary record (and more) of the fee-review process those statements describe: Defendants’ fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005 (including the “black books” collecting information relevant to the trustees’ review of management and distribution fees), as well as Operations Finance Department documents relating to those communications (including e-mail concerning preparation of such communications, and data generated or reviewed in connection with such communications).

REQUEST FOR PRODUCTION NO. 108:

All documents and tangible things in your possession, custody, or control that concern, refer, or relate to the issues of if, how, whether, or to what extent any conflicts of interests do or may exist between PIM, PRM, or other affiliated Putnam entities on the one hand, and any of the

Putnam Mutual Funds and/or their shareholders on the other hand.

RESPONSE TO REQUEST FOR PRODUCTION NO. 108:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense; for example, all documents that “concern” or “relate” to “whether” there are conflicts of interest between any Putnam entities and the funds or shareholders is a vague and overbroad category, which in effect purports to place on Defendants the burden of making subjective judgments as to which categories of documents might bear on such matters.

REQUEST FOR PRODUCTION NO. 109:

All documents and tangible things in your possession, custody, or control that concern, refer, or relate to the issues of if, how, whether, or to what extent the 12b-1 Fees charged by PRM or other affiliated Putnam entities have resulted in lower average expense ratios and/or lower flow volatility for any of the Putnam Mutual Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 109:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense. “All documents” that “relate” to “if, how, whether, or to what extent” 12b-1 fees have resulted in lower expense ratios or flow volatility is an overly broad category of documents, which improperly seeks to place on Defendants the burden of subjectively determining what concrete types of documents Plaintiffs might find useful in exploring those complex matters. Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, documents generated

during the period January 1, 2002 to June 30, 2005 that address the impact of 12b-1 fees on expense ratios and/or flow volatility, if any.

REQUEST FOR PRODUCTION NO. 110:

All documents and tangible things in your possession, custody, or control that concern, refer, or relate to the issues of if, how, whether, or to what extent the Management Fees and/or the 12b-1 Fees charged by PIM, PRM, or other affiliated Putnam entities have been or should be made transparent to actual or potential shareholders in any of the Putnam Mutual Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 110:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it assumes, contrary to evidence, that fees are not clearly disclosed to shareholders and potential shareholders. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense. The existing disclosures speak for themselves and are readily available to Plaintiffs; there is no basis in this case for discovery into internal communications about them.

REQUEST FOR PRODUCTION NO. 111:

All documents and tangible things in your possession, custody, or control that reflect, concern, or relate to any comparisons or contrasts drawn between how the profits and/or profit margins that PIM, PRM, or other affiliated Putnam entities have realized on Management Fees and/or 12b-1 Fees charged to any of the Putnam Mutual Funds have varied across fee schedule breakpoints.

RESPONSE TO REQUEST FOR PRODUCTION NO. 111:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague and ambiguous; as written, this request does not describe an

intelligible category of documents.

Subject to and without waiving the foregoing objections, Defendants will produce, to the extent located after diligent search, documents generated during the period January 1, 2002 to June 30, 2005 that address the impact of alternate actual or hypothetical breakpoints on profits.

REQUEST FOR PRODUCTION NO. 112:

All documents and tangible things in your possession, custody, or control that concern, refer, or relate to any investigation by any governmental, administrative, or self-regulatory body regarding the propriety or amount of any fees charged to any of the Putnam Mutual Funds including, but not limited to, all documents produced in such investigations, all transcripts of testimony, and all communications with such governmental, administrative, or self-regulatory bodies concerning such investigations.

RESPONSE TO REQUEST FOR PRODUCTION NO. 112:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense, particularly in its demand for all documents relating to all investigations concerning “the propriety or amount of fees” (which would encompass investigations on topics unrelated to this suit), without any time limitation, or other subject matter limitation.

Subject to and without waiving the foregoing objections, Defendants will produce documents constituting communications between Defendants and the regulator(s) in connection with any investigation alleging excessive management and/or excessive 12b-1 fees during the period January 1, 2002 to June 30, 2005.

REQUEST FOR PRODUCTION NO. 113:

All documents and tangible things in your possession, custody, or control that concern, refer, or relate to any litigation, arbitration, or mediation proceedings involving PIM and/or PRM as parties that contained any allegation concerning excessive fees charged to any of the Putnam Mutual Funds including, but not limited to, complaints, orders, judgments and settlement agreements.

RESPONSE TO REQUEST FOR PRODUCTION NO. 113:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

REQUEST FOR PRODUCTION NO. 116:

All documents and tangible things in your possession, custody, or control relevant to establishing the appropriate Lipper peer group for each of The Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 116:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense; all documents “relevant to establishing the appropriate Lipper peer group” for a fund is an exceedingly overbroad category, which seeks to place upon Defendants a burden appropriately borne by Plaintiffs (e.g., to determine what concrete categories of documents they believe are relevant to performing this analysis, and specifying them).

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005

(including the “black books” collecting information relevant to the trustees’ review of management and distribution fees), as well as Operations Finance Department documents relating to those communications (including e-mail concerning preparation of such communications, and data generated or reviewed in connection with such communications).

REQUEST FOR PRODUCTION NO. 117:

All documents and tangible things in your possession, custody, or control used for, or concerning, the training of any employees of Putnam entities including, but not limited to, any employee handbooks, manuals, procedure memoranda, and compliance guides.

RESPONSE TO REQUEST FOR PRODUCTION NO. 117:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is, to an extreme degree, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense; as drafted, it seeks any document used in or “concerning” the training of any employee of any Putnam entity at any time, which is a facially overbroad category of documents.

Subject to and without waiving the foregoing objections, Defendants will produce, to the extent located after diligent search and applicable to the period January 1, 2002 to June 30, 2005, any training manuals, and/or training guidelines applicable to portfolio management, to Operations Finance Department personnel, and to PRM personnel to the extent they relate to marketing.

REQUEST FOR PRODUCTION NO. 118:

All documents and tangible things in your possession, custody, or control that constitute resumes, curriculum vitae or other documents containing the professional and working history for anyone who served as an officer, Trustee, or member of any of the Investment Management Teams for any of The Funds at any and all times during the Damages Period.

RESPONSE TO REQUEST FOR PRODUCTION NO. 118:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that, to the extent it seeks information concerning trustees, it is properly directed to counsel for the trustees. Defendants otherwise object to this request on the basis that it is overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

REQUEST FOR PRODUCTION NO. 120:

All documents and tangible things in your possession, custody, or control that constitute prospectuses for any of The Funds, including all supplements or amendments thereto, or that constitute computer databases serving as an underlying source of any financial information appearing in such prospectuses.

RESPONSE TO REQUEST FOR PRODUCTION NO. 120:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that, to the extent it seeks “computer databases serving as an underlying source of financial information appearing in” prospectuses, it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

Subject to and without waiving the foregoing objections, Defendants will produce all prospectuses for each fund filed during the time period January 1, 2002 to June 30, 2005.

REQUEST FOR PRODUCTION NO. 121:

All documents and tangible things in your possession, custody, or control that constitute proxy statements for any of The Funds, including all supplements or amendments thereto, or that constitute computer databases serving as an underlying source of any financial information appearing in such prospectuses.

RESPONSE TO REQUEST FOR PRODUCTION NO. 121:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that, to the extent it seeks “computer databases serving as an underlying source of financial information appearing in such prospectuses,” it is incoherent (the request otherwise refers to proxy statements), vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

Subject to and without waiving the foregoing objections, Defendants will produce proxy statements for each of the funds at issue filed during the period January 1, 2002 to June 30, 2005.

REQUEST FOR PRODUCTION NO. 122:

All documents and tangible things in your possession, custody, or control that constitute publicly issued annual, quarterly, semi-annual, or other periodic reports, or Statements of Additional Information, for any of The Funds, including all supplements or amendments thereto, or that constitute computer databases serving as an underlying source of any financial information appearing in such reports or statements.

RESPONSE TO REQUEST FOR PRODUCTION NO. 122:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is, to an absurd degree, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense; it seeks in substance all documents relating to all of the funds at issue that have ever been publicly filed, and all “computer databases serving as an underlying source” for all of those documents. That is senseless.

REQUEST FOR PRODUCTION NO. 123:

All documents and tangible things in your possession, custody, or control that constitute

internal financial reports that provide further detail or breakdowns for the line items contained in any publicly available financial report for any of The Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 123:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense. As drafted, it seeks, in substance, any “internal financial report” (a vague term), relating to any “line item” in any public report, for each of the funds at issue, without any restriction as to time, without any showing of relevance, that there is no way to obtain the desired information by some less burdensome, more practicable means. Subject to and without waiving the foregoing objections, Defendants refer to, and incorporate herein, their responses to Request Nos. 29, 41, 46, 50, 55, 58, and 115. Defendants will also produce, only under an appropriate confidentiality order, the trial balance entries as to the consolidated Putnam results, and as to (individually) PIM, PRM, and PFTC, for years 2001, 2002, 2003, and 2004.

REQUEST FOR PRODUCTION NO. 124:

All documents and tangible things in your possession, custody, or control that concern, refer, or relate to the benefits and advantages, or detriments and disadvantages, to any of The Funds of using PIM as their investment advisor as opposed to using some entity other than PIM.

RESPONSE TO REQUEST FOR PRODUCTION NO. 124:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense; for example, all documents that “concern” or “relate” to the “benefits and advantages” of the funds’ use of PIM as their investment advisor is an absurdly broad category of documents, that could

conceivably encompass any document bearing in any way on PIM's advisory services.

Subject to and without waiving the foregoing objections, and solely under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005 (including the "black books" collecting information relevant to the trustees' review of management and distribution fees), as well as Operations Finance Department documents relating to those communications (including e-mail concerning preparation of such communications, and data generated or reviewed in connection with such communications).

REQUEST FOR PRODUCTION NO. 125:

All documents and tangible things in your possession, custody, or control that constitute contracts or agreements as between any member of any Board of Trustees for any of The Funds on the one hand, and any Putnam entity on the other hand.

RESPONSE TO REQUEST FOR PRODUCTION NO. 125:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense, particularly in its failure to specify any time period, its failure to specify any fund or set of funds, its failure to specify any "Putnam entity" or entities, and in its use of the broad phrase "any contracts or agreements" (as drafted, for example, this request would encompass any and all agreements with every interested trustee, from the beginning of Putnam's existence).

Subject to and without waiving the foregoing objections, Defendants will produce any responsive contracts located after diligent search as to the independent trustees; as to the remaining trustees, Defendants will produce documents sufficient to show their positions with

Defendants during the January 1, 2002-to-June 30, 2005 period.

REQUEST FOR PRODUCTION NO. 127:

All documents and tangible things in your possession, custody, or control that constitute, contracts or agreements (other than Management Contracts) between or among PIM, PRM, and/or any of The Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 127:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense; Plaintiffs can and should specify particular types of contracts. Subject to and without waiving the foregoing objections, Defendants will produce the following contracts for each of the funds at issue, to the extent the contracts were in effect during the period January 1, 2002 to June 30, 2005, as well as any other contracts effective during that same time period between defendants and any of the funds at issue: management contracts, distributor's contracts, custodian agreements, and distribution agreements.

REQUEST FOR PRODUCTION NO. 128:

All documents and tangible things in your possession, custody, or control that list, explain, characterize, or describe the nature and/or extent of any services provided by or on behalf of PIM and/or PRM to any of the Putnam Mutual Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 128:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense; it seeks all documents describing any service provided by PIM and/or PRM to the funds, which

conceivably encompasses an endless array of documents including such documents as internal memoranda describing day-to-day tasks performed, to trading records. Subject to and without waiving the foregoing objections, and solely under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005 (including the "black books" collecting information relevant to the trustees' review of management and distribution fees, which contain such description).

REQUEST FOR PRODUCTION NO. 129:

All documents and tangible things in your possession, custody, or control that reflect, concern, refer, or relate to any securities clearing relationship between PIM, PRM, and any other person or entity.

RESPONSE TO REQUEST FOR PRODUCTION NO. 129:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague and ambiguous.

REQUEST FOR PRODUCTION NO. 130:

All documents and tangible things in your possession, custody, or control that constitute, reflect, concern, refer, or relate to any internal policies, practices, or procedures purportedly followed by PIM and/or PRM when providing services under any Management Contract or pursuant to any Distribution Plan for any of the Putnam Mutual Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 130:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague and ambiguous, and, to an extreme degree, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense; as written, it appears to seek any document in any way

relating to any PIM and/or PRM policy, practice, or procedure, without any further subject matter limitation, and without any time limitation. (These same objections apply equally to the reformulation of this request contained in the November 17, 2005 letter from Thomas Gallo.)

Subject to and without waiving the foregoing objections, Defendants will produce, to the extent located after diligent search and applicable to the period January 1, 2002 to June 30, 2005, any training manuals, and/or training guidelines applicable to portfolio management, to Operations Finance Department personnel, and to PRM personnel to the extent they relate to marketing.

REQUEST FOR PRODUCTION NO. 131:

All documents and tangible things in your possession, custody, or control that constitute or summarize records of the daily purchases and sales of securities made on behalf of each of The Funds at any and all times during the Damages Period.

RESPONSE TO REQUEST FOR PRODUCTION NO. 131:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, and, to an extreme degree, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense. As drafted, this request seeks a massive volume of documents (including but not limited to daily trading records for a multi-year period for all funds at issue), without any showing by plaintiffs as to the relevance of the information contained in such documents, or as to their need to obtain whatever information they seek by this request by some less burdensome means.

Subject to and without waiving the foregoing objections, Defendants will produce all Form N30Ds and Form N-CSRs for the funds at issue filed during the period January 1, 2002 to

June 30, 2005 (these forms are filed twice annually, and each of them specifies the portfolio holdings and portfolio turnover rates of the relevant fund as of the date stated therein).

REQUEST FOR PRODUCTION NO. 132:

All documents and tangible things in your possession, custody, or control that constitute, reflect, concern, refer, or relate to any legal, accounting, financial, compliance, or other audits (whether internal or external) relating to any of The Funds including, but not limited to, any opinion letters of professionals such as attorneys or accountants, and/or any information or materials provided to any auditor relating to Management Fees and/or 12b-1 Fees.

RESPONSE TO REQUEST FOR PRODUCTION NO. 132:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

REQUEST FOR PRODUCTION NO. 136:

All documents and tangible things in your possession, custody, or control that constitute, reflect, concern, refer, or relate any practices, contracts, or agreements by which securities owned by or on behalf of any of The Funds are loaned to any other person or entity, including documents relevant to establishing the amount of profits realized as the result of such loans.

RESPONSE TO REQUEST FOR PRODUCTION NO. 136:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that, to the extent they can speculate as to its meaning, it is overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, any

securities lending agreement involving the funds at issue in effect during the period January 1, 2002 to June 30, 2005.

REQUEST FOR PRODUCTION NO. 137:

All documents and tangible things in your possession, custody, or control that constitute, reflect, concern, refer, or relate to communications to or from shareholders of any of The Funds concerning Management Fees and/or 12b-1 Fees charged to The Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 137:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense (including in its demand for communications from shareholders concerning management and/or 12b-1 fees, which are patently irrelevant).

Subject to and without waiving the foregoing objections, Defendants will produce all Form 485s (which include prospectuses), and all Form N-30Ds and Form N-CSRs, for the funds at issue filed during the period January 1, 2002 to June 30, 2005. Defendants will also produce any complaints received from shareholders during the period January 1, 2002 through June 30, 2005 concerning management and/or 12b-1 fees.

REQUEST FOR PRODUCTION NO. 138:

All documents and tangible things in your possession, custody, or control relevant to establishing on an annualized basis relative to each of The Funds for each of the years of their existence the profits that PIM and/or PRM have realized on the Management Fees and 12b-1 Fees that they have charged, and the per unit costs and expenses that they have incurred.

RESPONSE TO REQUEST FOR PRODUCTION NO. 138:

See General Objections, which are incorporated herein. Defendants further object to this

request on the basis that it is overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. For example, it is inappropriate and inefficient, for Plaintiffs to seek the information at issue through a sweeping document request for "[a]ll documents ... relevant to establishing" that information; an interrogatory is the proper device for such information, and then only to the extent properly discoverable; and even if it were appropriate to seek the information at issue through a document request, this request, as drafted, is overly broad and unduly burdensome, including to the extent that it purports to seek "[a]ll" documents "relevant to establishing" the information at issue (concerning profits), rather than documents sufficient to provide Plaintiffs with that information. Defendants further object to this request on the basis that it is vague, particularly in its use of the undefined term "per unit costs and expenses."

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the "black books" collecting information relevant to the trustees' review of management and distribution fees (which contain information concerning profits).

REQUEST FOR PRODUCTION NO. 139:

All documents and tangible things in your possession, custody, or control that constitute, reflect, concern, or refer or relate to marketing and/or sales plans for any of The Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 139:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

REQUEST FOR PRODUCTION NO. 140:

All documents and tangible things in your possession, custody, or control constituting internal financial reports or analyses pertaining to PIM, PRM, or any of The Funds including, but not limited to, budgets, forecasts, and cost accounting reports.

RESPONSE TO REQUEST FOR PRODUCTION NO. 140:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense. Subject to and without waiving the foregoing objections, Defendants refer to, and incorporate herein, their responses to Request Nos. 29, 41, 46, 50, 55, 58, and 115.

b. Plaintiffs' Position

Putnam's refusal to produce documents created after June 30, 2005, based (in part) upon the faulty premise that damages stopped accruing at the time Plaintiffs filed suit, is utterly unjustified. There is nothing in Section 36(b) providing that damages stop at any particular time. On its face, the statute provides only a temporal limit on *pre-filing* damages. Furthermore, even if Plaintiffs' damages were limited to the time period of May 2003-May 2004, which they are not, Plaintiffs would still be entitled to obtain otherwise discoverable information through the time of trial. Whatever concerns Putnam might have about "pending deliberations" have been adequately addressed in the Stipulation and Order for the Protection and Exchange of Confidential and Highly Confidential Information. And as to responsive documents not yet in existence, Putnam's periodic production would satisfy Plaintiff's legitimate discovery needs without imposing undue hardship on Putnam.

Plaintiffs refer the Court to the Memorandum in Support of Plaintiffs' Motion to Compel

Defendants' to Respond to Plaintiffs' First Set of Requests for the Production of Documents ("Plaintiffs' Memorandum"), at pages 4-8 for a full discussion of Plaintiffs' position on the production of documents created after June 30, 2005.

2. Documents At Least As Far Back As January 1, 1995 Are Discoverable.

Plaintiffs disagree with Putnam's refusal to provide documents before January 1, 2002 as to the following requests.

a. The Requests and Responses.

REQUEST FOR PRODUCTION NO. 8:

All documents and tangible things in your possession, custody, or control relevant to identifying each of the various types of services and/or resources that PIM, PRM, or other Putnam entities have provided in exchange for the Management Fees, Portfolio Selection Fees, and 12b-1 Fees that they have received from any of the Putnam Mutual Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 8:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, and, to an extreme degree, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. As drafted, this request potentially implicates nearly any document in Defendants' possession, because most if not all such documents would aid in identifying "each of the various types of services and/or resources" Defendants provide to the funds. Further, it is inappropriate and inefficient to seek the information at issue through a sweeping document request for "[a]ll documents . . . relevant to establishing" that information; an interrogatory is the proper device for such information, and then only to the extent properly discoverable. Further, even if it were

appropriate to seek the information at issue through a document request, this request, as drafted, is overly broad and unduly burdensome, including to the extent that it purports to seek "[a]ll" documents "relevant to establishing" the information at issue (concerning types of services provided in exchange for fees), rather than documents sufficient to provide that information.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the "black books" collecting information relevant to the trustees' review of management and distribution fees (which contain information responsive to this request).

REQUEST FOR PRODUCTION NO. 9:

All documents and tangible things in your possession, custody, or control relevant to unbundling the Management Fees, Portfolio Selection Fees, and 12b-1 Fees that PIM, PRM, or other affiliated Putnam entities have received from any of the Putnam Mutual Funds into their component portions corresponding to each of the various types of services and/or resources that they have provided to The Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 9:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague and ambiguous, particularly in its reference to "unbundling" the referenced types of fees into "their component portions corresponding" to "services and/or resources"; the vagueness is compounded by the request's demand for "[a]ll" documents "relevant" to that abstract concept.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their

fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the "black books" collecting information relevant to the trustees' evaluation of management and distribution fees (which contain information responsive to this request), as well as Operations Finance Department documents relating to those communications (including e-mail concerning preparation of such communications, and data generated or reviewed in connection with such communications).

REQUEST FOR PRODUCTION NO. 14:

All documents and tangible things in your possession, custody, or control that concern, refer or relate to the issues of if, whether, how, or to what degree any existing mutual fund shareholder benefits from paying 12b-1 Fees.

RESPONSE TO REQUEST FOR PRODUCTION NO. 14:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. For example, "[a]ll documents" that "relate" to the impact of 12b-1 fees on the interests of shareholders is a request that improperly seeks to place on Defendants the burden of attempting to subjectively determine what specific documents, of a sweeping array of potential categories and types of documents spanning an unlimited period of time, Plaintiffs' counsel and their expert(s) might find useful in exploring this issue.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce all documents generated on or after January 1, 2002 addressing the impact of 12b-1 fees on the interests of mutual fund shareholders, if any, to the extent located after diligent search.

REQUEST FOR PRODUCTION NO. 15:

All documents and tangible things in your possession, custody, or control that concern, refer, or relate to the issues of whether paying 12b-1 Fees is unfair, harmful, detrimental, disadvantageous, or contrary to the interests or welfare of any existing mutual fund shareholder.

RESPONSE TO REQUEST FOR PRODUCTION NO. 15:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that, for the reasons stated in their response to Response to Request for Production No. 14, it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce all documents generated on or after January 1, 2002 addressing the impact of 12b-1 fees on the interests of mutual fund shareholders, if any, to the extent located after diligent search.

REQUEST FOR PRODUCTION NO. 16:

All documents and tangible things in your possession, custody, or control that concern, refer, or relate to the issue of whether the Management Fees and/or 12b-1 Fees paid to PIM, PRM, or other affiliated Putnam entities by any of the Putnam Mutual Funds have been excessive.

RESPONSE TO REQUEST FOR PRODUCTION NO. 16:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. For example, “[a]ll documents” that “relate” to “whether” the management and/or 12b-1 fees on any Putnam fund are “excessive” is a request that improperly seeks to place on Defendants the burden of attempting to subjectively

determine what specific documents, of a sweeping array of potential categories and types of documents spanning an unlimited period of time, Plaintiffs' counsel and their expert(s) might find useful in exploring the core legal issue in this case. (There is no substantive difference between this request, and one that purports to demand "[a]ll documents in any way bearing on Plaintiffs' claim that fees are excessive.")

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce all documents generated on or after January 1, 2002 addressing whether management and/or 12b-1 fees on Putnam mutual funds are excessive, if any, to the extent located after diligent search.

REQUEST FOR PRODUCTION NO. 17:

All documents and tangible things in your possession, custody, or control that concern, refer, or relate to the issues of whether it is advisable, legal, appropriate, proper, fair, justified, or warranted to directly or indirectly charge 12b-1 Fees to any existing mutual fund shareholder.

RESPONSE TO REQUEST FOR PRODUCTION NO. 17:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is substantively duplicative of Request No. 15, and refer to, and adopt herein, their objections to Request No. 15.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce all documents generated on or after January 1, 2002 addressing the impact of 12b-1 fees on the interests of mutual fund shareholders, if any, to the extent located after diligent search.

REQUEST FOR PRODUCTION NO. 18:

All documents and tangible things in your possession, custody, or control that concern,

refer, or relate to the issues of whether there have been, should be, or may be any increases, reductions, curtailments, or eliminations of any portion of the Management Fees and/or 12b-1 Fees charged to any of the Putnam Mutual Funds by PIM, PRM, or other affiliated Putnam entities.

RESPONSE TO REQUEST FOR PRODUCTION NO. 18:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. For example, "[a]ll documents" that "relate" to whether management and/or 12b-1 fees "should be" lower is a request that improperly seeks to place on Defendants the burden of attempting to subjectively determine what specific documents, of a sweeping array of potential categories and types of documents, spanning an unlimited period of time and implicating an array of aspects of Defendants' business and activities, Plaintiffs' counsel and their expert(s) might find useful in attempting to prove the claims in this case.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005 (including the "black books" collecting information relevant to the trustees' review of management and distribution fees), as well as Operations Finance Department documents relating to those communications (including e-mail concerning preparation of such communications, and data generated or reviewed in connection with such communications). This is a broad and substantive category of core documents, and Plaintiffs' counsel and their expert(s) should review and understand these documents, and in the future, on the basis of the extensive

non-public information in these documents and analysis of that information, propound requests for specific, concrete categories of documents, for which they can offer a good-faith justification.

REQUEST FOR PRODUCTION NO. 20:

All documents and tangible things in your possession, custody, or control that concern, refer, or relate to the issues of if, whether, how, or in what amounts PRM or other affiliated Putnam entities profit, benefit, or save on expenses by virtue of receiving 12b-1 Fees from any of the Putnam Mutual Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 20:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence; it is not at all clear what documents this confusing request seeks.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the "black books" collecting information relevant to the trustees' review of management and distribution fees (which contain information concerning profits), as well as -- for that same period -- any documents addressing benefits to the defendants of 12b-1 fees.

REQUEST FOR PRODUCTION NO. 21:

All documents and tangible things in your possession, custody, or control that concern, refer, or relate to the issues of whether the nature or amounts of Management Fees that PIM has charged to any of the Putnam Mutual Funds are advisable, legal, appropriate, proper, fair, justified, or warranted.

RESPONSE TO REQUEST FOR PRODUCTION NO. 21:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. For example, "[a]ll documents" that "relate to" whether Putnam management fees are "appropriate" is a request which improperly seeks to place on Defendants the burden of attempting to subjectively determine what specific documents Plaintiffs' counsel and their expert(s) might find useful in attempting to prove the claims in this case, out of a broad array of potential categories and types of documents, spanning an unlimited period of time.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the "black books" collecting information relevant to the trustees' review of the appropriateness of management and distribution fees.

REQUEST FOR PRODUCTION NO. 22:

All documents and tangible things in your possession, custody, or control that concern, refer, or relate to the issues of whether the nature or amounts of Management Fees that PIM has charged to any of the Putnam Mutual Funds are excessive, unfair, harmful, detrimental, disadvantageous, or contrary to the interests or welfare of any of the Putnam Mutual Funds or their shareholders.

RESPONSE TO REQUEST FOR PRODUCTION NO. 22:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is substantively duplicative of Request No. 21. Subject to and without waiving the foregoing objections, Defendants refer to, and incorporate herein, their objections

and response to Request No. 21.

REQUEST FOR PRODUCTION NO. 35:

All documents and tangible things in your possession, custody, or control that constitute, reflect, concern, refer, or relate to any explanations, characterizations, or descriptions of the activities that each of the Investment Management Teams perform for each of The Funds in connection with furnishing them with investment programs and/or making investment decisions for them about what securities shall be purchased, held, sold, or exchanged.

RESPONSE TO REQUEST FOR PRODUCTION NO. 35:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense. Defendants further object to this request on the basis that it is improper, and inefficient, to seek the information at issue (specification of the responsibilities and activities of investment personnel) through a sweeping document request; interrogatories or depositions are the proper device for such information, and then only to the extent the information is properly discoverable.

Subject to and without waiving the foregoing objections, Defendants will produce the management contracts applicable to the funds at issue during the period January 1, 2002 to present, and the prospectuses for the funds at issue for that same period.

REQUEST FOR PRODUCTION NO. 43:

All documents and tangible things in your possession, custody, or control that concern, refer to, or address any of the requirements or standards imposed by Section 36(b) of the Investment Company Act of 1940, 15 U.S.C. § 80a-35(b), or by Rule 12b-1 promulgated under that Act, 15 U.S.C. § 80a-12(b), 17 C.F.R. § 270.12b-1.

RESPONSE TO REQUEST FOR PRODUCTION NO. 43:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense, particularly in its demand for all documents that "concern" the requirements and standards of 15 U.S.C. § 80a-35(b), which is an improper attempt to shift to the Defendants the burden of identifying specific categories of documents relevant to plaintiffs' claim and theories.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005 (including the "black books" collecting information relevant to the trustees' review of management and distribution fees), as well as Operations Finance Department documents relating to those communications (including e-mail concerning preparation of such communications, and data generated or reviewed in connection with such communications). Defendants will also produce, to the extent located after diligent search (and to the extent not privileged), all documents generated during the period January 1, 2002 to June 30, 2005 addressing the requirements of 15 U.S.C. § 80a-35(b).

REQUEST FOR PRODUCTION NO. 44:

All documents and tangible things in your possession, custody, or control that concern, refer to, or address the issues of if; whether, how, or to what extent PIM has complied, should comply, or may comply with any of the requirements or standards imposed by Section 36(b) of the Investment Company Act of 1940, 15 U.S.C. § 80a-35(b).

RESPONSE TO REQUEST FOR PRODUCTION NO. 44:

See General Objections, which are incorporated herein. Defendants further object to this

request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense, particularly in its demand for all documents that "concern" the requirements and standards of 15 U.S.C. § 80a-35(b), which is an improper effort to shift to the Defendants the Plaintiffs' burden of identifying specific categories of documents relevant to their claims and theories.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005 (including the "black books" collecting information relevant to the trustees' review of management and distribution fees), as well as Operations Finance Department documents relating to those communications (including e-mail concerning preparation of such communications, and data generated or reviewed in connection with such communications). Defendants will also produce, to the extent located after diligent search (and to the extent not privileged), all documents generated during the period January 1, 2002 to June 30, 2005 addressing the requirements of 15 U.S.C. § 80a-35(b).

REQUEST FOR PRODUCTION NO. 45:

All documents and tangible things in your possession, custody, or control that concern, refer to, or address the issues of if, whether, how, or to what extent PRM, other affiliated Putnam entities, and/or any of the Distribution Plans adopted by any of the Putnam Mutual Funds has complied, should comply, or may comply with any of the requirements or standards imposed by Rule 12b-1 of the Investment Company Act of 1940, 15 U.S.C. §80a-12(b), 17 C.F.R. §270.12b-1.

RESPONSE TO REQUEST FOR PRODUCTION NO. 45:

See General Objections, which are incorporated herein. Defendants further object to this

request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense, particularly in its demand for all documents that "concern" the requirements or standards imposed by 5 U.S.C. § 80a-12(b), 17 C.F.R. § 270.12b-1, which is an improper effort to shift to the Defendants the Plaintiffs' burden of identifying specific categories of documents relevant to their claims and theories.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005 (including the "black books" collecting information relevant to the trustees' review of management and distribution fees), as well as Operations Finance Department documents relating to those communications (including e-mail concerning preparation of such communications, and data generated or reviewed in connection with such communications). Defendants will also produce, to the extent located after diligent search (and to the extent not privileged), all documents generated during the period January 1, 2002 to June 30, 2005 addressing the requirements of Rule 12b-1 of the Investment Company Act of 1940, 15 U.S.C. § 80a-12(b), 17 C.F.R. §270.12b-1.

REQUEST FOR PRODUCTION NO. 54:

All documents and tangible things in your possession, custody, or control that reflect, concern, refer, or relate to any decision or agreement made by PIM and/or PRM to waive fees and reimburse expenses of any of The Funds through at least July 31, 2005 to the extent necessary to ensure that any of The Funds' expenses do not exceed the average expenses of other funds viewed by Lipper, Inc. as having the same investment classification or objective of any of

The Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 54:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

Subject to and without waiving the foregoing objections, and only subject to an appropriate confidentiality order, Defendants will produce responsive communications between PIM and/or PRM, on the one hand, and the trustees, on the other hand, from January 1, 2002 to June 30, 2005, to the extent located after diligent search. Defendants will also produce, for that same period of time, Operations Finance Department documents concerning this waiver (for example, e-mails within Operations Finance Department concerning this waiver, and e-mail received by Operations Finance Department concerning this waiver).

REQUEST FOR PRODUCTION NO. 59:

All documents and tangible things in your possession, custody, or control that constitute, reflect or concern any policies relating to the practice of simultaneously servicing multiple accounts that have been applicable to any member of any Investment Management Team for any of the Putnam Mutual Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 59:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague and ambiguous.

REQUEST FOR PRODUCTION NO. 75:

All documents and tangible things in your possession, custody, or control that constitute, reflect, concern, refer, or relate to any negotiations, bargaining, or communications relating to any actual or proposed Management Fees, Management Contracts, 12b-1 Fees, or Distribution

Plans among or between PIM, PRM, or other affiliated Putnam entities, and any of the Boards of Trustees, or their Boards of Trustees Committees, for any of The Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 75:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the "black books" collecting information relevant to the trustees' review of management and distribution fees. Defendants will also produce the minutes referenced in their response to Request No. 72.

REQUEST FOR PRODUCTION NO. 76:

All documents and tangible things in your possession, custody, or control that reflect, concern, refer, or relate to any consideration given by any of the Boards of Trustees, or their Boards of Trustees Committees, to the issue of whether or not to approve any actual or proposed Management Contract or Distribution Plan for any of The Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 76:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their

fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the "black books" collecting information relevant to the trustees' review of management and distribution fees. Defendants will also produce the minutes referenced in their response to Request No. 72.

REQUEST FOR PRODUCTION NO. 77:

All documents and tangible things in your possession, custody, or control that constitute or reflect any information or materials provided to, and/or reviewed by, any of the Boards of Trustees, or their Boards of Trustees Committees, in connection with their consideration of whether or not to approve any actual or proposed Management Contract or Distribution Plan for any of The Funds. Such documents and tangible things should include, but not be limited to, those that constitute or reflect information or materials furnished pursuant to § 15(c) of the Investment Company Act of 1940.

RESPONSE TO REQUEST FOR PRODUCTION NO. 77:

General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the "black books" collecting information relevant to the trustees' review of management and distribution fees.

REQUEST FOR PRODUCTION NO. 78:

All documents and tangible things in your possession, custody, or control that constitute,

reflect, concern, refer, or relate to any criteria or policies used by any of the Boards of Trustees, or their Boards of Trustees Committees, in connection with their consideration of whether or not to approve any actual or proposed Management Contract or Distribution Plan for any of The Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 78:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the "black books" collecting information relevant to the trustees' review of management and distribution fees.

REQUEST FOR PRODUCTION NO. 79:

All documents and tangible things in your possession, custody, or control that constitute, reflect, concern, refer, or relate to any suggestion, opinion, conclusion, or proposal about potentially withholding approval of any Management Contract or Distribution Plan for any of the Putnam Mutual Funds by any of the Boards of Trustees, or by their Boards of Trustees Committees.

RESPONSE TO REQUEST FOR PRODUCTION NO. 79:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the "black books" collecting information relevant to the trustees' review of management and distribution fees.

REQUEST FOR PRODUCTION NO. 80:

All documents and tangible things in your possession, custody, or control that reflect, concern, refer, or relate to any consideration given by any of the Boards of Trustees, or their Boards of Trustees Committees, to terminating any Management Contract and/or Distribution Plan existing between any of the Putnam Mutual Funds and PIM or PRM.

RESPONSE TO REQUEST FOR PRODUCTION NO. 80:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the "black books" collecting information relevant to the trustees' review of management and distribution fees.

REQUEST FOR PRODUCTION NO. 81:

All documents and tangible things in your possession, custody, or control that reflect, concern, refer, or relate to any consideration given by any of the Boards of Trustees, or their Boards of Trustees Committees, to permitting, directing or obligating any of the Putnam Mutual

Funds to pay Management Fees and/or 12b-1 Fees to any entities other than PIM or PRM.

RESPONSE TO REQUEST FOR PRODUCTION NO. 81:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the "black books" collecting information relevant to the trustees' review of management and distribution fees.

REQUEST FOR PRODUCTION NO. 82:

All documents and tangible things in your possession, custody, or control that reflect, concern, refer, or relate to any consideration given by any of the Boards of Trustees, or their Boards of Trustees Committees, to the requirements or standards imposed by Section 36(b) of the Investment Company Act of 1940 or Rule 12b-1 promulgated thereunder, and/or to the issues of whether PIM, PRM, or other affiliated Putnam entities have acted in compliance therewith in relation to any Management Contract or Distribution Plan with any of the Putnam Mutual Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 82:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their

fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the "black books" collecting information relevant to the trustees' review of management and distribution fees.

REQUEST FOR PRODUCTION NO. 83:

All documents and tangible things in your possession, custody, or control that constitute or reflect any information or materials concerning Management Fees or 12b-1 Fee charged by entities other than PIM or PRM that have been shown or provided to, and/or considered by, any of the Boards of Trustees, or their Boards of Trustees Committees, for any of the Putnam Mutual Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 83:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the "black books" collecting information relevant to the trustees' review of management and distribution fees (which category of documents encompasses the category of documents sought by this request).

REQUEST FOR PRODUCTION NO. 84:

All documents and tangible things in your possession, custody, or control that constitute or reflect any information or materials concerning PAC that have been shown or provided to, and/or considered by, any of the Board of Trustees, or their Board of Trustees Committees, for

any of the Putnam Mutual Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 84:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense (including in its demand for all information shown to the trustees concerning PAC, without any further subject-matter or temporal qualification).

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the "black books" collecting information relevant to the trustees' review of management and distribution fees (which include information concerning PAC, as it relates to the trustees' review of management and distribution fees).

REQUEST FOR PRODUCTION NO. 85:

All documents and tangible things in your possession, custody, or control that constitute or reflect any information or materials concerning the status, activities, investment performance or returns, or expense ratios of any of The Funds that have been shown or provided to, and/or considered by, any of the Boards of Trustees, or their Boards of Trustees Committees.

RESPONSE TO REQUEST FOR PRODUCTION NO. 85:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense (including in its request for a vague category if "information" shown to the trustees concerning

the funds at issue, without any temporal limitation).

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the "black books" collecting information relevant to the trustees' review of management and distribution fees, and Defendants will also produce, for the same period of time, (i) the monthly PIM updates to the Trustees Investment Oversight Committees concerning investment performance of the funds at issue, and (ii) information produced by PIM to the Trustees' Investment Oversight Committees in connection with the trustees' periodic additional reviews of the performance of particular funds, to the extent such review related to the funds at issue.

REQUEST FOR PRODUCTION NO. 86:

All documents and tangible things in your possession, custody, or control that reflect, concern, refer, or relate to any consideration given by any of the Boards of Trustees, or their Boards of Trustees Committees, in deciding whether or not to approve any actual or proposed Management Contract for any of The Funds to the factors for assessing the reasonableness of Management Fees established in *Gartenberg v. Merrill Lynch Asset Management, Inc.*, 694 F.2d 923 (2d Cir. 1982) and its progeny. These factors include the following: (i) sharing of economies [sic] of scale benefit; (ii) comparisons to other relevant fee structures; (iii) the nature and quality of services provided; (iv) the profitability of The Funds to PIM and its affiliates; (v) the receipt of other Fall-Out Benefits or indirect profits; and (vi) the independence and conscientiousness of the Trustees.

RESPONSE TO REQUEST FOR PRODUCTION NO. 86:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the "black books" collecting information relevant to the trustees' review of management and distribution fees.

REQUEST FOR PRODUCTION NO. 87:

All documents and tangible things in your possession, custody, or control that reflect, concern, refer, or relate to any consideration given by any of the Boards of Trustees, or their Boards of Trustees Committees, for any of the Putnam Mutual Funds to articles written by critics of the alleged disparity between retail and institutional fee schedules, to articles by the ICI or others defending such fee differences, and/or to decisions of the courts providing guidance with respect to such issues.

RESPONSE TO REQUEST FOR PRODUCTION NO. 87:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce responsive documents located after diligent search as to the period January 1, 2002 to June 30, 2005.

REQUEST FOR PRODUCTION NO. 88:

All documents and tangible things in your possession, custody, or control that concern, refer, or relate to the issues of if, whether, how, or to what extent Economies of Scale Benefits and/or Fall-Out Benefits exist in the mutual fund industry relative to the provision of services in connection with Management Contracts and/or Distribution Plans.

RESPONSE TO REQUEST FOR PRODUCTION NO. 88:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense; for example, all documents that "concern" or "relate" to "whether" there are economies of scale and/or fall-out benefits in the mutual fund industry is a vague and outrageously overbroad category, which in effect purports to place on Defendants the burden of making subjective judgments as to what categories of documents plaintiffs' counsel and their expert(s) may view as bearing on these issues.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005 (including the "black books" collecting information relevant to the trustees' review of management and distribution fees), as well as Operations Finance Department documents relating to those communications (including e-mail concerning preparation of such communications, and data generated or reviewed in connection with such communications). (These documents contain economies of scale discussion and analysis.) Defendants will also produce, for that same period of time, all documents otherwise addressing economies of scale benefits and/or fall-out benefits as they relate to management fees, to the extent located after

diligent search.

REQUEST FOR PRODUCTION NO. 89:

All documents and tangible things in your possession, custody, or control that concern, refer, or relate to the issues of if, whether, how, or to what extent Economies of Scale Benefits and/or Fall-Out Benefits have been, are, could be, or should be shared as between providers of services in connection with Management Contracts and/or Distribution Plans on the one hand, and mutual funds or their shareholders on the other hand.

RESPONSE TO REQUEST FOR PRODUCTION NO. 89:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense; for example, all documents that "concern" or "relate" to "if" there are economies of scale and/or fall-out benefits in the mutual fund industry and "whether they have been" or "should be" "shared" is a vague and outrageously overbroad category, which in effect purports to place on Defendants the burden of making subjective judgments as to which categories of documents and types of documents plaintiffs' counsel and their expert(s) may view as bearing on those legal issues.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005 (including the "black books" collecting information relevant to the trustees' review of management and distribution fees), as well as Operations Finance Department documents relating to those communications (including e-mail concerning preparation of such communications, and data generated or reviewed in connection with such communications). (These documents contain economies of scale discussion and

analysis.) Defendants will also produce, for that same period of time, all documents otherwise addressing economies of scale benefits and/or fall-out benefits as they relate to management fees, to the extent located after diligent search.

REQUEST FOR PRODUCTION NO. 90:

All documents and tangible things in your possession, custody, or control that concern, refer, or relate to the issues of if, whether, how, or to what extent PIM, PRM, and/or other affiliated Putnam entities realize Economies of Scale Benefits and/or Fall-Out Benefits in connection with their provision of any services or resources to any of the Putnam Mutual Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 90:

See. General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense; for example, all documents that "concern" or "relate" to whether Defendants realize economies of scale and/or fall-out benefits is a vague and hugely overbroad category, which in effect purports to place on Defendants the burden of making subjective judgments as to which categories of documents plaintiffs' counsel and their expert(s) may view as bearing on the broad issues of economies of scale and fall out benefits.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005 (including the "black books" collecting information relevant to the trustees' review of management and distribution fees), as well as Operations Finance Department documents relating to those communications (including e-mail concerning preparation of such

communications, and data generated or reviewed in connection with such communications). Defendants will also produce, for that same period of time, all documents otherwise addressing economies of scale benefits and/or fall-out benefits as they relate to management fees, to the extent located after diligent search.

REQUEST FOR PRODUCTION NO. 91:

All documents and tangible things in your possession, custody, or control that concern, refer, or relate to the issues of if, whether, how, or to what extent PIM, PRM, and/or other affiliated Putnam entities share with any of the Putnam Mutual Funds any Economies of Scale Benefits and/or Fall-Out Benefits they realize in connection with their provision of any services or resources to any of the Putnam Mutual Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 91:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense; for example, all documents that "concern" or "relate" to whether Defendants "share" any economies of scale and/or fall-out benefits is a vague and overbroad category, which purports to place on Defendants the burden of making subjective judgments as to which categories of documents may bear on those matters.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005 (including the "black books" collecting information relevant to the trustees' review of management and distribution fees), as well as Operations Finance Department documents

relating to those communications (including e-mail concerning preparation of such communications, and data generated or reviewed in connection with such communications). Defendants will also produce, for that same period of time, all documents otherwise addressing economies of scale benefits and/or fall-out benefits as they relate to management fees, to the extent located after diligent search.

REQUEST FOR PRODUCTION NO. 92:

All documents and tangible things in your possession, custody, or control that constitute, reflect, or concern any quantification of Economies of Scale Benefits and/or Fall-Out Benefits that PIM, PRM, and/or other affiliated Putnam entities realize in connection with their provision of any services or resources to any of the Putnam Mutual Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 92:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, all documents generated during the period. January 1, 2002 to June 30, 2005 containing numerical analysis of economies of scale, including their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005 (including the "black books" collecting information relevant to the trustees' review of management and distribution fees).

REQUEST FOR PRODUCTION NO. 93:

All documents and tangible things in your possession, custody, or control that concern, refer, or relate to the issues of whether PIM, PRM, or other affiliated Putnam entities have failed

to share any Economies of Scale Benefits and/or Fall-Out Benefits with any of the Putnam Mutual Funds to a degree that has been inequitable, unfair, harmful, detrimental, disadvantageous, or contrary to the interests or welfare of any of the Putnam Mutual Funds or their shareholders.

RESPONSE TO REQUEST FOR PRODUCTION NO. 93:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense; for example, all documents that "concern" or "relate" to whether Defendants "have failed to share" any economies of scale and/or fall-out benefits to an "inequitable" degree is a vague, overbroad and argumentative category, which purports to place on Defendants the burden of making subjective judgments as to which categories of documents might bear on those matters, even though that burden is properly borne by plaintiffs' counsel and their expert(s).

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005 (including the "black books" collecting information relevant to the trustees' review of management and distribution fees), as well as Operations Finance Department documents relating to those communications (including e-mail concerning preparation of such communications, and data generated or reviewed in connection with such communications). Defendants will also produce, for that same period of time, all documents otherwise addressing economies of scale benefits and/or fall-out benefits as they relate to management fees, to the extent located after diligent search.

REQUEST FOR PRODUCTION NO. 101:

All documents and tangible things in your possession, custody, or control that constitute, reflect, concern, refer, or relate to each of the fee schedules for Management Fees and/or for 12b-1 Fees that PIM, PRM, or other affiliated Putnam entities have proposed or furnished to each of The Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 101:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense; all documents that "refer" or "relate" to fee schedules is a category that is difficult to understand, and, read literally, sweepingly overbroad (it appears to call for every document in any way relating to fees).

Subject to and without waiving the foregoing objections, Defendants will produce the fee schedules applicable to each of the funds at issue during the period May 18, 2003 through June 30, 2005.

REQUEST FOR PRODUCTION NO. 102:

All documents and tangible things in your possession, custody, or control that concern, refer, or relate to the development or formulation of each of the fee schedules for Management Fees and/or for 12b-1 Fees that PIM, PRM, or other affiliated Putnam entities have proposed or furnished to each of The Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 102:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005 (including the "black books" collecting information relevant to the trustees' review of management and distribution fees), as well as Operations Finance Department documents relating to those communications (including e-mail concerning preparation of such communications, and data generated or reviewed in connection with such communications).

REQUEST FOR PRODUCTION NO. 103:

All documents and tangible things in your possession, custody, or control relevant to identifying, and/or establishing the amounts of, any Management Fees or 12b-1 Fees that PIM or PRM have received from any entity other than any of the Putnam Mutual Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 103:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague and ambiguous, and, to the extent comprehensible, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

Subject to and without waiving the foregoing objections, Defendants will produce documents sufficient to identify, for the January 1, 2002-through-June 30, 2005 period of time, any management and/or 12b-1 fees that PIM and/or PRM have received from any entity other than the Putnam Mutual Funds.

REQUEST FOR PRODUCTION NO. 108:

All documents and tangible things in your possession, custody, or control that concern, refer, or relate to the issues of if, how, whether, or to what extent any conflicts of interests do or

may exist between PIM, PRM, or other affiliated Putnam entities on the one hand, and any of the Putnam Mutual Funds and/or their shareholders on the other hand.

RESPONSE TO REQUEST FOR PRODUCTION NO. 108:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense; for example, all documents that "concern" or "relate" to "whether" there are conflicts of interest between any Putnam entities and the funds or shareholders is a vague and overbroad category, which in effect purports to place on Defendants the burden of making subjective judgments as to which categories of documents might bear on such matters.

REQUEST FOR PRODUCTION NO. 109:

All documents and tangible things in your possession, custody, or control that concern, refer, or relate to the issues of if, how, whether, or to what extent the 12b-1 Fees charged by PRM or other affiliated Putnam entities have resulted in lower average expense ratios and/or lower flow volatility for any of the Putnam Mutual Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 109:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense. "All documents" that "relate" to "if, how, whether, or to what extent" 12b-1 fees have resulted in lower expense ratios or flow volatility is an overly broad category of documents, which improperly seeks to place on Defendants the burden of subjectively determining what concrete types of documents Plaintiffs might find useful in exploring those complex matters. Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality

order, Defendants will produce, to the extent located after diligent search, documents generated during the period January 1, 2002 to June 30, 2005 that address the impact of 12b-1 fees on expense ratios and/or flow volatility, if any.

REQUEST FOR PRODUCTION NO. 111:

All documents and tangible things in your possession, custody, or control that reflect, concern, or relate to any comparisons or contrasts drawn between how the profits and/or profit margins that PIM, PRM, or other affiliated Putnam entities have realized on Management Fees and/or 12b-1 Fees charged to any of the Putnam Mutual Funds have varied across fee schedule breakpoints.

RESPONSE TO REQUEST FOR PRODUCTION NO. 111:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague and ambiguous; as written, this request does not describe an intelligible category of documents.

Subject to and without waiving the foregoing objections, Defendants will produce, to the extent located after diligent search, documents generated during the period January 1, 2002 to June 30, 2005 that address the impact of alternate actual or hypothetical breakpoints on profits.

REQUEST FOR PRODUCTION NO. 112:

All documents and tangible things in your possession, custody, or control that concern, refer, or relate to any investigation by any governmental, administrative, or self-regulatory body regarding the propriety or amount of any fees charged to any of the Putnam Mutual Funds including, but not limited to, all documents produced in such investigations, all transcripts of testimony, and all communications with such governmental, administrative, or self-regulatory bodies concerning such investigations.

RESPONSE TO REQUEST FOR PRODUCTION NO. 112:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense, particularly in its demand for all documents relating to all investigations concerning "the propriety or amount of fees" (which would encompass investigations on topics unrelated to this suit), without any time limitation, or other subject matter limitation.

Subject to and without waiving the foregoing objections, Defendants will produce documents constituting communications between Defendants and the regulator(s) in connection with any investigation alleging excessive management and/or excessive 12b-1 fees during the period January 1, 2002 to June 30, 2005.

REQUEST FOR PRODUCTION NO. 113:

All documents and tangible things in your possession, custody, or control that concern, refer, or relate to any litigation, arbitration, or mediation proceedings involving PIM and/or PRM as parties that contained any allegation concerning excessive fees charged to any of the Putnam Mutual Funds including, but not limited to, complaints, orders, judgments and settlement agreements.

RESPONSE TO REQUEST FOR PRODUCTION NO. 113:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

REQUEST FOR PRODUCTION NO. 117:

All documents and tangible things in your possession, custody, or control used for, or concerning, the training of any employees of Putnam entities including, but not limited to, any

employee handbooks, manuals, procedure memoranda, and compliance guides.

RESPONSE TO REQUEST FOR PRODUCTION NO. 117:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is, to an extreme degree, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense; as drafted, it seeks any document used in or "concerning" the training of any employee of any Putnam entity at any time, which is a facially overbroad category of documents.

Subject to and without waiving the foregoing objections, Defendants will produce, to the extent located after diligent search and applicable to the period January 1, 2002 to June 30, 2005, any training manuals, and/or training guidelines applicable to portfolio management, to Operations Finance Department personnel, and to PRM personnel to the extent they relate to marketing.

REQUEST FOR PRODUCTION NO. 124:

All documents and tangible things in your possession, custody, or control that concern, refer, or relate to the benefits and advantages, or detriments and disadvantages, to any of The Funds of using PIM as their investment advisor as opposed to using some entity other than PIM.

RESPONSE TO REQUEST FOR PRODUCTION NO. 124:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense; for example, all documents that "concern" or "relate" to the "benefits and advantages" of the funds' use of PIM as their investment advisor is an absurdly broad category of documents, that could conceivably encompass any document bearing in any way on PIM's advisory services.

Subject to and without waiving the foregoing objections, and solely under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005 (including the "black books" collecting information relevant to the trustees' review of management and distribution fees), as well as Operations Finance Department documents relating to those communications (including e-mail concerning preparation of such communications, and data generated or reviewed in connection with such communications).

REQUEST FOR PRODUCTION NO. 127:

All documents and tangible things in your possession, custody, or control that constitute, contracts or agreements (other than Management Contracts) between or among PIM, PRM, and/or any of The Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 127:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense; Plaintiffs can and should specify particular types of contracts. Subject to and without waiving the foregoing objections, Defendants will produce the following contracts for each of the funds at issue, to the extent the contracts were in effect during the period January 1, 2002 to June 30, 2005, as well as any other contracts effective during that same time period between defendants and any of the funds at issue: management contracts, distributor's contracts, custodian agreements, and distribution agreements.

REQUEST FOR PRODUCTION NO. 128:

All documents and tangible things in your possession, custody, or control that list, explain, characterize, or describe the nature and/or extent of any services provided by or on

behalf of PIM and/or PRM to any of the Putnam Mutual Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 128:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense; it seeks all documents describing any service provided by PIM and/or PRM to the funds, which conceivably encompasses an endless array of documents including such documents as internal memoranda describing day-to-day tasks performed, to trading records. Subject to and without waiving the foregoing objections, and solely under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005 (including the "black books" collecting information relevant to the trustees' review of management and distribution fees, which contain such description).

REQUEST FOR PRODUCTION NO. 130:

All documents and tangible things in your possession, custody, or control that constitute, reflect, concern, refer, or relate to any internal policies, practices, or procedures purportedly followed by PIM and/or PRM when providing services under any Management Contract or pursuant to any Distribution Plan for any of the Putnam Mutual Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 130:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague and ambiguous, and, to an extreme degree, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense; as written, it appears to seek any document in any way relating to any PIM and/or PRM policy, practice, or procedure, without any further subject

matter limitation, and without any time limitation. (These same objections apply equally to the reformulation of this request contained in the November 17, 2005 letter from Thomas Gallo.)

Subject to and without waiving the foregoing objections, Defendants will produce, to the extent located after diligent search and applicable to the period January 1, 2002 to June 30, 2005, any training manuals, and/or training guidelines applicable to portfolio management, to Operations Finance Department personnel, and to PRM personnel to the extent they relate to marketing.

REQUEST FOR PRODUCTION NO. 132:

All documents and tangible things in your possession, custody, or control that constitute, reflect, concern, refer, or relate to any legal, accounting, financial, compliance, or other audits (whether internal or external) relating to any of The Funds including, but not limited to, any opinion letters of professionals such as attorneys or accountants, and/or any information or materials provided to any auditor relating to Management Fees and/or 12b-1 Fees.

RESPONSE TO REQUEST FOR PRODUCTION NO. 132:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

REQUEST FOR PRODUCTION NO. 133:

All documents and tangible things in your possession, custody, or control that constitute, reflect, concern, refer, or relate to any contracts or agreements by which PIM and/or PRM subcontract with or for any other person or entity to perform any services pursuant to any Management Contract or Distribution Plan with any of The Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 133:

See General Objections, which are incorporated herein. Defendants further object to this

request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

Subject to and without waiving the foregoing objections, Defendants will produce responsive contracts, if any, applicable to the period January 1, 2002 to present.

REQUEST FOR PRODUCTION NO. 137:

All documents and tangible things in your possession, custody, or control that constitute, reflect, concern, refer, or relate to communications to or from shareholders of any of The Funds concerning Management Fees and/or 12b-1 Fees charged to The Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 137:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense (including in its demand for communications from shareholders concerning management and/or 12b-1 fees, which are patently irrelevant).

Subject to and without waiving the foregoing objections, Defendants will produce all Form 485s (which include prospectuses), and all Form N-30Ds and Form N-CSRs, for the funds at issue filed during the period January 1, 2002 to June 30, 2005. Defendants will also produce any complaints received from shareholders during the period January 1, 2002 through June 30, 2005 concerning management and/or 12b-1 fees.

REQUEST FOR PRODUCTION NO. 138:

All documents and tangible things in your possession, custody, or control relevant to establishing on an annualized basis relative to each of The Funds for each of the years of their existence the profits that PIM and/or PRM have realized on the Management Fees and 12b-1

Fees that they have charged, and the per unit costs and expenses that they have incurred.

RESPONSE TO REQUEST FOR PRODUCTION NO. 138:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. For example, it is inappropriate and inefficient, for Plaintiffs to seek the information at issue through a sweeping document request for "[a]ll documents . . . relevant to establishing" that information; an interrogatory is the proper device for such information, and then only to the extent properly discoverable; and even if it were appropriate to seek the information at issue through a document request, this request, as drafted, is overly broad and unduly burdensome, including to the extent that it purports to seek "[a]ll" documents "relevant to establishing" the information at issue (concerning profits), rather than documents sufficient to provide Plaintiffs with that information. Defendants further object to this request on the basis that it is vague, particularly in its use of the undefined term "per unit costs and expenses."

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the "black books" collecting information relevant to the trustees' review of management and distribution fees (which contain information concerning profits).

b. Plaintiffs' Position

Putnam's position is patently unreasonable. Documents generated at least as far back as January 1, 1995 must be produced because, among other reasons, Plaintiffs require this information to fully and fairly analyze the *Gartenberg* factors. Furthermore, Putnam's position

ignores the fact that the Trustees, when analyzing the *Gartenberg* factors during their annual evaluations, review information going back to the mid-1990s. Plaintiffs refer the Court to Plaintiffs' Memorandum at pages 8-10 for the full discussion of this issue.

B. Putnam Must Disclose All Responsive Internal Documents.

1. Putnam's Agreement to Provide "Black Books" Is Insufficient.

Plaintiffs dispute Putnam's responses to the following requests insofar as Putnam unilaterally limits its production to "fee-related communications with the trustees."

a. The Requests and Responses

REQUEST FOR PRODUCTION NO. 8:

All documents and tangible things in your possession, custody, or control relevant to identifying each of the various types of services and/or resources that PIM, PRM, or other Putnam entities have provided in exchange for the Management Fees, Portfolio Selection Fees, and 12b-1 Fees that they have received from any of the Putnam Mutual Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 8:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, and, to an extreme degree, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. As drafted, this request potentially implicates nearly any document in Defendants' possession, because most if not all such documents would aid in identifying "each of the various types of services and/or resources" Defendants provide to the funds. Further, it is inappropriate and inefficient to seek the information at issue through a sweeping document request for "[a]ll documents ... relevant to establishing" that information; an interrogatory is the proper device for such information, and then only to the extent properly discoverable. Further, even if it were appropriate to seek the information at issue through a document request, this request, as drafted,

is overly broad and unduly burdensome, including to the extent that it purports to seek "[a]ll" documents "relevant to establishing" the information at issue (concerning types of services provided in exchange for fees), rather than documents sufficient to provide that information.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the "black books" collecting information relevant to the trustees' review of management and distribution fees (which contain information responsive to this request).

RESPONSE TO REQUEST FOR PRODUCTION NO. 21:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. For example, "[a]ll documents" that "relate to" whether Putnam management fees are "appropriate" is a request which improperly seeks to place on Defendants the burden of attempting to subjectively determine what specific documents Plaintiffs' counsel and their expert(s) might find useful in attempting to prove the claims in this case, out of a broad array of potential categories and types of documents, spanning an unlimited period of time.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the "black books" collecting information relevant to the trustees' review of the appropriateness of management and distribution fees.

REQUEST FOR PRODUCTION NO. 22:

All documents and tangible things in your possession, custody, or control that concern, refer, or relate to the issues of whether the nature or amounts of Management Fees that PIM has charged to any of the Putnam Mutual Funds are excessive, unfair, harmful, detrimental, disadvantageous, or contrary to the interests or welfare of any of the Putnam Mutual Funds or their shareholders.

RESPONSE TO REQUEST FOR PRODUCTION NO. 22:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is substantively duplicative of Request No. 21. Subject to and without waiving the foregoing objections, Defendants refer to, and incorporate herein, their objections and response to Request No. 21.

REQUEST FOR PRODUCTION NO. 65:

All documents and tangible things in your possession, custody, or control relevant to identifying, and establishing the amounts of, each of the various types of monies, fees, and/or reimbursable expenses *other than Management Fees or 12b-1 Fees* that PIM, PRM, or other affiliated Putnam entities have received from any of The Funds at any and all times during the Damages Period.

RESPONSE TO REQUEST FOR PRODUCTION NO. 65:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. For example, it is inappropriate, and extraordinarily inefficient, for Plaintiffs to seek the information at issue through a sweeping document request for "[a]ll documents ... relevant to ... establishing" that information; an interrogatory is the proper device for such information, and then only to the extent properly

discoverable; further, even if it were appropriate to seek the information at issue through a document request, this request, as drafted, is overly broad and unduly burdensome, including to the extent that it purports to seek "[a]ll documents "relevant to establishing" the information at issue (concerning the amounts of certain fees), rather than documents sufficient to provide that information.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the "black books" collecting information relevant to the trustees' review of management and distribution fees.

REQUEST FOR PRODUCTION NO. 66:

All documents and tangible things in your possession, custody, or control relevant to establishing the profits and profit margins that PIM, PRM, or other affiliated Putnam entities have realized in connection with each of the various types of monies, fees, and/or reimbursable expenses *other than Management Fees or 12b-1 Fees* that they have received from any of The Funds at any and all times during the Damages Period.

RESPONSE TO REQUEST FOR PRODUCTION NO. 66:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. For example, it is inappropriate, and extraordinarily inefficient, for Plaintiffs to seek the straightforward information at issue through a sweeping document request for "[a]ll documents ... relevant to establishing" that information; an interrogatory is the proper device for such information, and then only to the extent properly

discoverable; further, even if it were appropriate to seek the information at issue through a document request, this request, as drafted, is overly broad and unduly burdensome, including to the extent that it purports to seek “[a]ll” documents “relevant to establishing” the information at issue (concerning profits), rather than documents sufficient to provide that information.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the "black books" collecting information relevant to the trustees' review of management and distribution fees.

REQUEST FOR PRODUCTION NO. 67:

All documents and tangible things in your possession, custody, or control relevant to establishing the costs, expenses, and expense ratios that PIM, PRM, or other affiliated Putnam entities have incurred in connection with each of the services and/or resources that they have provided in exchange for the various types of monies, fees, and/or reimbursable expenses other than Management Fees or 12b-1 Fees that they have received from any of The Funds at any and all times during the Damages Period.

RESPONSE TO REQUEST FOR PRODUCTION NO. 67:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. For example, it is inappropriate, and extraordinarily inefficient, for Plaintiffs to seek the straightforward information at issue through a sweeping document request for "[a]ll documents ... relevant to establishing" that information; an interrogatory is the proper device for such information, and then only to the extent properly

discoverable; further, even if it were appropriate to seek the information at issue through a document request, this request, as drafted, is overly broad and unduly burdensome, including to the extent that it purports to seek "[a]ll" documents "relevant to establishing" the information at issue (concerning costs), rather than documents sufficient to provide that information.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the "black books" collecting information relevant to the trustees' review of management and distribution fees.

REQUEST FOR PRODUCTION NO. 69:

All documents and tangible things in your possession, custody, or control relevant to identifying, and establishing the amounts of, each of the various types of costs and expenses that each of The Funds incurred at any and all times during the Damages Period *other than from their payments of Management Fees or 12b-1 Fees* including, but not limited to, investor servicing fee expenses; custodian fee expenses; trustee compensation costs and expenses; administrative services expenses; and/or any other types of costs or expenses.

RESPONSE TO REQUEST FOR PRODUCTION NO. 69:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. For example, it is inappropriate and inefficient for Plaintiffs to seek the information at issue through a sweeping document request for "[a]ll documents ... relevant to establishing" that information; an interrogatory is the proper device for such information, and then only to the extent properly discoverable; further, even if it were

appropriate to seek the information at issue through a document request, this request, as drafted, is overly broad and unduly burdensome, including to the extent that it purports to seek "[a]ll" documents "relevant to ... establishing" the information at issue (concerning costs and expenses of the funds at issue), rather than documents sufficient to provide that information.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the "black books" collecting information relevant to the trustees' review of management and distribution fees.

REQUEST FOR PRODUCTION NO. 70:

All documents and tangible things in your possession, custody, or control relevant to identifying each of the various types of services and/or resources that were provided to each of The Funds at any and all times during the Damages Period in exchange for the various types of monies, fees, and/or reimbursable expenses other than Management Fees or 12b-1 Fees that were paid by any of The Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 70:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. For example, it is inappropriate and inefficient for Plaintiffs to seek the information at issue through a sweeping document request for "[a]ll documents ... relevant to identifying" that information; an interrogatory is the proper device for such information, and then only to the extent properly discoverable; further, even if it were appropriate to seek the information at issue through a document request, this request, as drafted,

is overly broad and unduly burdensome, including to the extent that it purports to seek "[a]ll" documents "relevant to ... identifying" the information at issue (concerning all services and resources provided to the funds at issue), rather than documents sufficient to provide that information.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the "black books" collecting information relevant to the trustees' review of management and distribution fees.

REQUEST FOR PRODUCTION NO. 71:

All documents and tangible things in your possession, custody, or control relevant to identifying and establishing the persons or entities who received payments from any of The Funds, and in what amounts, in connection with the various types of costs and expenses that The Funds incurred at any and all times during the Damages Period other than from their payments of Management Fees or 12b-1 Fees.

RESPONSE TO REQUEST FOR PRODUCTION NO. 71:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the "black books" collecting information relevant to the trustees' review of

management and distribution fees.

REQUEST FOR PRODUCTION NO. 78:

All documents and tangible things in your possession, custody, or control that constitute, reflect, concern, refer, or relate to any criteria or policies used by any of the Boards of Trustees, or their Boards of Trustees Committees, in connection with their consideration of whether or not to approve any actual or proposed Management Contract or Distribution Plan for any of The Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 78:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the "black books" collecting information relevant to the trustees' review of management and distribution fees.

REQUEST FOR PRODUCTION NO. 79:

All documents and tangible things in your possession, custody, or control that constitute, reflect, concern, refer, or relate to any suggestion, opinion, conclusion, or proposal about potentially withholding approval of any Management Contract or Distribution Plan for any of the Putnam Mutual Funds by any of the Boards of Trustees, or by their Boards of Trustees Committees.

RESPONSE TO REQUEST FOR PRODUCTION NO. 79:

See General Objections, which are incorporated herein. Defendants further object to this

request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the "black books" collecting information relevant to the trustees' review of management and distribution fees.

REQUEST FOR PRODUCTION NO. 80:

All documents and tangible things in your possession, custody, or control that reflect, concern, refer, or relate to any consideration given by any of the Boards of Trustees, or their Boards of Trustees Committees, to terminating any Management Contract and/or Distribution Plan existing between any of the Putnam Mutual Funds and PIM or PRM.

RESPONSE TO REQUEST FOR PRODUCTION NO. 80:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the "black books" collecting information relevant to the trustees' review of management and distribution fees.

REQUEST FOR PRODUCTION NO. 81:

All documents and tangible things in your possession, custody, or control that reflect,

concern, refer, or relate to any consideration given by any of the Boards of Trustees, or their Boards of Trustees Committees, to permitting, directing or obligating any of the Putnam Mutual Funds to pay Management Fees and/or 12b-1 Fees to any entities other than PIM or PRM.

RESPONSE TO REQUEST FOR PRODUCTION NO. 81:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the "black books" collecting information relevant to the trustees' review of management and distribution fees.

REQUEST FOR PRODUCTION NO. 82:

All documents and tangible things in your possession, custody, or control that reflect, concern, refer, or relate to any consideration given by any of the Boards of Trustees, or their Boards of Trustees Committees, to the requirements or standards imposed by Section 36(b) of the Investment Company Act of 1940 or Rule 12b-1 promulgated thereunder, and/or to the issues of whether PIM, PRM, or other affiliated Putnam entities have acted in compliance therewith in relation to any Management Contract or Distribution Plan with any of the Putnam Mutual Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 82:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the "black books" collecting information relevant to the trustees' review of management and distribution fees.

REQUEST FOR PRODUCTION NO. 86:

All documents and tangible things in your possession, custody, or control that reflect, concern, refer, or relate to any consideration given by any of the Boards of Trustees, or their Boards of Trustees Committees, in deciding whether or not to approve any actual or proposed Management Contract for any of The Funds to the factors for assessing the reasonableness of Management Fees established in *Gartenberg v. Merrill Lynch Asset Management, Inc.*, 694 F.2d 923 (2d Cir. 1982) and its progeny. These factors include the following: (i) sharing of economies [sic] of scale benefit; (ii) comparisons to other relevant fee structures; (iii) the nature and quality of services provided; (iv) the profitability of The Funds to PIM and its affiliates; (v) the receipt of other Fall-Out Benefits or indirect profits; and (vi) the independence and conscientiousness of the Trustees.

RESPONSE TO REQUEST FOR PRODUCTION NO. 86:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005,

including the "black books" collecting information relevant to the trustees' review of management and distribution fees.

REQUEST FOR PRODUCTION NO. 92:

All documents and tangible things in your possession, custody, or control that constitute, reflect, or concern any quantification of Economies of Scale Benefits and/or Fall-Out Benefits that PIM, PRM, and/or other affiliates Putnam entities realize in connection with their provision of any services or resources to any of the Putnam Mutual Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 92:

See General Objections, which have incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense. Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, all documents generated during the period January 1, 2002 to June 30, 2005 containing numerical analysis of economies of scale, including their free-related communications with the trustees during the period of January 1, 2002 to June 30, 2005 (including the "black books" collecting information relevant to the trustees' review of management and distribution fees).

REQUEST FOR PRODUCTION NO. 94:

All documents and tangible things in your possession, custody, or control that constitute, reflect, concern, refer, or relate to any model schedules for Management Fees developed by, or on behalf of, PIM, PRM, and/or any of the Boards of Trustees, or their Boards of Trustees Committees, for any of the Putnam Mutual Funds, including any earlier versions, drafts, or proposals of or for such model fee schedules.

RESPONSE TO REQUEST FOR PRODUCTION NO. 94:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the "black books" collecting information relevant to the trustees' evaluation of management and distribution fees (which contain information responsive to this request).

REQUEST FOR PRODUCTION NO. 128:

All documents and tangible things in your possession, custody, or control that list, explain, characterize, or describe the nature and/or extent of any services provided by or on behalf of PIM and/or PRM to any of the Putnam Mutual Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 128:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense; it seeks all documents describing any service provided by PIM and/or PRM to the funds, which conceivably encompasses an endless array of documents including such documents as internal memoranda describing day-to-day tasks performed, to trading records. Subject to and without waiving the foregoing objections, and solely under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005 (including the "black books" collecting information relevant to the trustees' review of management and

distribution fees, which contain such description).

REQUEST FOR PRODUCTION NO. 138:

All documents and tangible things in your possession, custody, or control relevant to establishing on an annualized basis relative to each of The Funds for each of the years of their existence the profits that PIM and/or PRM have realized on the Management Fees and 12b-1 Fees that they have charged, and the per unit costs and expenses that they have incurred.

RESPONSE TO REQUEST FOR PRODUCTION NO. 138:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. For example, it is inappropriate and inefficient, for Plaintiffs to seek the information at issue through a sweeping document request for "[a]ll documents ... relevant to establishing" that information; an interrogatory is the proper device for such information, and then only to the extent properly discoverable; and even if it were appropriate to seek the information at issue through a document request, this request, as drafted, is overly broad and unduly burdensome, including to the extent that it purports to seek "[a]ll" documents "relevant to establishing" the information at issue (concerning profits), rather than documents sufficient to provide Plaintiffs with that information. Defendants further object to this request on the basis that it is vague, particularly in its use of the undefined term "per unit costs and expenses."

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the "black books" collecting information relevant to the trustees' review of

management and distribution fees (which contain information concerning profits).

b. Plaintiffs' Position

The documents Plaintiffs seek are discoverable, whether or not Putnam submitted them to the Trustees. Plaintiffs' position is set forth in full at pages 11-13 in Plaintiffs' Memorandum.

2. Putnam's Agreement to Provide Operations Finance Department Documents Relating to Fee-Related Communications With Trustees Is Insufficient and, Therefore, Not Responsive.

The following response are deficient because Putnam limits production to operations finance department documents relating to fee-related communications, in addition to the "black books."

a. The Requests and Responses

REQUEST FOR PRODUCTION NO. 6:

All documents and tangible things in your possession, custody, or control relevant to establishing the total profits and profit margins that PIM, PRM, or other affiliated Putnam entities have realized in connection with the Management Fees, Portfolio Selection Fees, and 12b-1 Fees that they have received from each of The Funds at any and all times during the Damages Period.

RESPONSE TO REQUEST FOR PRODUCTION NO. 6:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. For example, it is inappropriate and inefficient to seek the information at issue through a sweeping document request for "[a]ll documents ... relevant to establishing" that information; an interrogatory is the proper device for

such information, and then only to the extent properly discoverable. Further, even if it were appropriate to seek the information at issue through a document request, this request, *as* drafted, is overly broad and unduly burdensome, including to the extent that it purports to seek "[a]ll" documents "relevant to establishing" the information at issue (concerning profits), rather than documents sufficient to provide that information.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the "black books" collecting information relevant to the trustees' evaluation of management and distribution fees (which contain information responsive to this request), as well as Operations Finance Department documents relating to those communications (including e-mail concerning preparation of such communications, and data generated or reviewed in connection with such communications).

REQUEST FOR PRODUCTION NO. 7:

All documents and tangible things in your possession, custody, or control relevant to establishing the total costs, expenses, and expense ratios that PIM, PRM, or other affiliated Putnam entities have incurred in connection with all services and/or resources that they have provided in exchange for the Management Fees, Portfolio Selection Fees, and 12b-1 Fees that they have received from each of The Funds at any and all times during the Damages Period.

RESPONSE TO REQUEST FOR PRODUCTION NO. 7:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. For example, it is inappropriate and

inefficient to seek the information at issue through a sweeping document request for “[a]ll documents ... relevant to establishing” that information; an interrogatory is the proper device for such information, and then only to the extent properly discoverable. Further, even if it were appropriate to seek the information at issue through a document request, this request, as drafted, is overly broad and unduly burdensome, including to the extent that it purports to seek “[a]ll” documents “relevant to establishing” the information at issue (concerning costs), rather than documents sufficient to provide that information.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the "black books" collecting information relevant to the trustees' evaluation of management and distribution fees (which contain information responsive to this request), as well as Operations Finance Department documents relating to those communications (including e-mail concerning preparation of such communications, and data generated or reviewed in connection with such communications).

REQUEST FOR PRODUCTION NO. 9:

All documents and tangible things in your possession, custody, or control relevant to unbundling the Management Fees, Portfolio Selection Fees, and 12b-1 Fees that PIM, PRM, or other affiliated Putnam entities have received from any of the Putnam Mutual Funds into their component portions corresponding to each of the various types of services and/or resources that they have provided to The Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 9:

See General Objections, which are incorporated herein. Defendants further object to this

request on the basis that it is vague and ambiguous, particularly in its reference to "unbundling" the referenced types of fees into "their component portions corresponding" to "services and/or resources"; the vagueness is compounded by the request's demand for "[a]ll" documents "relevant" to that abstract concept.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the "black books" collecting information relevant to the trustees' evaluation of management and distribution fees (which contain information responsive to this request), as well as Operations Finance Department documents relating to those communications (including e-mail concerning preparation of such communications, and data generated or reviewed in connection with such communications).

REQUEST FOR PRODUCTION NO. 10:

With respect to each of the unbundled component portions of the Management Fees, Portfolio Selection Fees, and 12b-1 Fees referenced above in Request For Production No. 9, all documents and tangible things in your possession, custody, or control relevant to establishing the amounts that PIM, PRM, or other affiliated Putnam entities have received from each of The Funds at any and all times during the Damages Period.

RESPONSE TO REQUEST FOR PRODUCTION NO. 10:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that, for the reasons stated in their response to Request No. 9, which is incorporated herein, it is vague and ambiguous.

Subject to and without waiving the foregoing objections, and only under an appropriate

confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the "black books" collecting information relevant to the trustees' evaluation of management and distribution fees (which contain information responsive to this request), as well as Operations Finance Department documents relating to those communications (including e-mail concerning preparation of such communications, and data generated or reviewed in connection with such communications).

REQUEST FOR PRODUCTION NO. 11:

With respect to each of the unbundled component portions of the Management Fees, Portfolio Selection Fees, and 12b-1 Fees referenced above in Request For Production No. 9, all documents and tangible things in your possession, custody, or control relevant to establishing the profits and profit margins that PIM, PRM, or other affiliated Putnam entities have realized from each of The Funds at any and all times during the Damages Period.

RESPONSE TO REQUEST FOR PRODUCTION NO. 11:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that, for the reasons stated in their response to Request No. 9, which is incorporated herein, it is vague and ambiguous.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the "black books" collecting information relevant to the trustees' evaluation of management and distribution fees (which contain information responsive to this request), as well as Operations Finance Department documents relating to those communications (including e-

mail concerning preparation of such communications, and data generated or reviewed in connection with such communications).

REQUEST FOR PRODUCTION NO. 13:

All documents and tangible things in your possession, custody, or control relevant to establishing what dispositions or uses, and in what amounts, PIM, PRM, or other affiliated Putnam entities have made of all portions of the Management Fees and 12b-1 Fees that they have received from each of The Funds at any and all times during the Damages Period.

RESPONSE TO REQUEST FOR PRODUCTION NO. 13:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is substantively duplicative of Request Nos. 7 and 8. Subject to and without waiving the foregoing objections, Defendants refer to, and incorporate herein, their objections and responses to Request Nos. 7 and 8.

REQUEST FOR PRODUCTION NO. 18:

All documents and tangible things in your possession, custody, or control that concern, refer, or relate to the issues of whether there have been, should be, or may be any increases, reductions, curtailments, or eliminations of any portion of the Management Fees and/or 12b-1 Fees charged to any of the Putnam Mutual Funds by PIM, PRM, or other affiliated Putnam entities.

RESPONSE TO REQUEST FOR PRODUCTION NO. 18:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. For example, "[a]ll documents" that "relate" to whether management and/or 12b-1 fees "should be" lower is a request that improperly seeks to place on Defendants the burden of attempting to subjectively determine what specific

documents, of a sweeping array of potential categories and types of documents, spanning an unlimited period of time and implicating an array of aspects of Defendants' business and activities, Plaintiffs' counsel and their expert(s) might find useful in attempting to prove the claims in this case.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005 (including the "black books" collecting information relevant to the trustees' review of management and distribution fees), as well as Operations Finance Department documents relating to those communications (including e-mail concerning preparation of such communications, and data generated or reviewed in connection with such communications). This is a broad and substantive category of core documents, and Plaintiffs' counsel and their expert(s) should review and understand these documents, and in the future, on the basis of the extensive non-public information in these documents and analysis of that information, propound requests for specific, concrete categories of documents, for which they can offer a good-faith justification.

REQUEST FOR PRODUCTION NO. 54:

All documents and tangible things in your possession, custody, or control that reflect, concern, refer, or relate to any decision or agreement made by PIM and/or PRM to waive fees and reimburse expenses of any of The Funds through at least July 31, 2005 to the extent necessary to ensure that any of The Funds' expenses do not exceed the average expenses of other funds viewed by Lipper, Inc. as having the same investment classification or objective of any of The Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 54:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

Subject to and without waiving the foregoing objections, and only subject to an appropriate confidentiality order, Defendants will produce responsive communications between PIM and/or PRM, on the one hand, and the trustees, on the other hand, from January 1, 2002 to June 30, 2005, to the extent located after diligent search. Defendants will also produce, for that same period of time, Operations Finance Department documents concerning this waiver (for example, e-mails within Operations Finance Department concerning this waiver, and e-mail received by Operations Finance Department concerning this waiver).

REQUEST FOR PRODUCTION NO. 102:

All documents and tangible things in your possession, custody, or control that concern, refer, or relate to the development or formulation of each of the fee schedules for Management Fees and/or for 12b-1 Fees that PIM, PRM, or other affiliated Putnam entities have proposed or furnished to each of The Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 102:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005

(including the "black books" collecting information relevant to the trustees' review of management and distribution fees), as well as Operations Finance Department documents relating to those communications (including e-mail concerning preparation of such communications, and data generated or reviewed in connection with such communications).

REQUEST FOR PRODUCTION NO. 107:

All documents and tangible things in your possession, custody, or control that constitute, reflect, concern, refer, or relate to the drafting, revising, and/or inclusion of: (i) the new passage entitled "Management fee considerations" that recently began to appear on Putnam's web site; and/or (ii) the new standard passages entitled "Trustee approval of management contracts" that recently began to appear in, *inter alia*, the semiannual reports published on behalf of some or all of the Putnam Mutual Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 107:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense. Defendants understand what public statements plaintiffs refer to in this request, but do not understand what plaintiffs seek, in requesting all documents that "reflect, concern, refer or relate" to them.

Subject to and without waiving the foregoing objections, however, Defendants will produce copies of the statements themselves, and, to the extent located after diligent search, the following materials, which constitute the documentary record (and more) of the fee-review process those statements describe: Defendants' fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005 (including the "black books" collecting

information relevant to the trustees' review of management and distribution fees), as well as Operations Finance Department documents relating to those communications (including e-mail concerning preparation of such communications, and data generated or reviewed in connection with such communications).

REQUEST FOR PRODUCTION NO. 116:

All documents and tangible things in your possession, custody, or control relevant to establishing the appropriate Lipper peer group for each of The Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 116:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense; all documents "relevant to establishing the appropriate Lipper peer group" for a fund is an exceedingly overbroad category, which seeks to place upon Defendants a burden appropriately borne by Plaintiffs (e.g., to determine what concrete categories of documents they believe are relevant to performing this analysis, and specifying them).

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005 (including the "black books" collecting information relevant to the trustees' review of management and distribution fees), as well as Operations Finance Department documents relating to those communications (including e-mail concerning preparation of such communications, and data generated or reviewed in connection with such communications).

REQUEST FOR PRODUCTION NO. 124:

All documents and tangible things in your possession, custody, or control that concern, refer, or relate to the benefits and advantages, or detriments and disadvantages, to any of The Funds of using PIM as their investment advisor as opposed to using some entity other than PIM.

RESPONSE TO REQUEST FOR PRODUCTION NO. 124:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense; for example, all documents that "concern" or "relate" to the "benefits and advantages" of the funds' use of PIM as their investment advisor is an absurdly broad category of documents, that could conceivably encompass any document bearing in any way on PIM's advisory services.

Subject to and without waiving the foregoing objections, and solely under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005 (including the "black books" collecting information relevant to the trustees' review of management and distribution fees), as well as Operations Finance Department documents relating to those communications (including e-mail concerning preparation of such communications, and data generated or reviewed in connection with such communications).

b. Plaintiffs' Position

Plaintiffs are entitled to discover any and all documents responsive to the requests, not merely the documents from one Putnam department that Putnam claims were reviewed or generated in connection with the communications to the Trustees about fees. All responsive data, memoranda, communications and other documents from any and all Putnam departments

and irrespective of whether reviewed or generated in connection with the “black books” is discoverable and must be produced. Plaintiffs refer the Court to page 13 of Plaintiffs’ Memorandum for the full discussion of Plaintiffs’ position on this issue.

3. Putnam Cannot Limit Discovery to Its Public Filings and Trustee Communications and Minutes.

Putnam abuses the discovery process when it limits its production to public filings, Trustee communications and/or Trustee minutes, as it does in response to the following requests.

a. The Requests and Responses

REQUEST FOR PRODUCTION NO. 5:

All documents and tangible things in your possession, custody, or control relevant to establishing the total amounts of Management Fees, Portfolio Selection Fees, and 12b-1 Fees that PIM, PRM, or other affiliated Putnam entities have received from each of The Funds at any and all times during the Damages Period.

RESPONSE TO REQUEST FOR PRODUCTION NO. 5:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is overly vague, broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. For example, it is inappropriate and inefficient to seek the information at issue (concerning total fees) through a sweeping document request for “[a]ll documents . . . relevant to establishing” that information; an interrogatory is the proper device for such information, and then only to the extent properly discoverable. Further, even if it were appropriate to seek the information at issue through a document request, this request, as drafted, is overly broad and unduly burdensome, including to the extent that it purports to seek “[a]ll” documents “relevant to establishing” the information at issue (concerning total fees), rather than documents sufficient to provide that information.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the "black books" containing information relevant to the trustees' evaluation of management and distribution fees (which contain information responsive to this request). Defendants will also produce the Form 485's for the funds at issue filed during the period January 1, 2002 to June 30, 2005 (which also contain information responsive to this request).

REQUEST FOR PRODUCTION NO. 34:

All documents and tangible things in your possession, custody, or control sufficient to identify all accounts other than The Funds that have been serviced by any Portfolio Leader or Portfolio Member of any of the Investment Management Teams for any of The Funds at any and all times during the Damages Period.

RESPONSE TO REQUEST FOR PRODUCTION NO. 34:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. For example, it is inappropriate and inefficient for Plaintiffs to seek the information at issue (identification of particular accounts) through a document request; an interrogatory is the proper device for such information, and then only to the extent properly discoverable.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the "black books" collecting information relevant to the trustees' review of

management and distribution fees (which contain information responsive to this request).

Defendants will also produce, for each fund at issue, all Form 485s, Form N-30Ds, and Form N-CSR filed during the period January 1, 2002 to June 30, 2005 (which contain information identifying the investment management team of each fund).

REQUEST FOR PRODUCTION NO. 48:

All documents and tangible things in your possession, custody, or control relevant to establishing the portfolio holdings (on a daily or other periodic basis) and/or the portfolio turnover rates of each of The Funds at any and all times during the Damages Period.

RESPONSE TO REQUEST FOR PRODUCTION NO. 48:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense; for example, all documents "relevant to establishing" the portfolio holdings and turnover rates for each of the funds at issue over a multi-year period of time is a category of documents that could conceivably encompass any document bearing in any way on the holdings of any of the funds at issue (including daily trading records). As drafted, this request seeks a massive volume of documents, without any showing by plaintiffs as to the relevance of the information contained in such documents, or as to their need to obtain whatever information they seek by this request by some less burdensome means.

Subject to and without waiving the foregoing objections, Defendants will produce all Form N30Ds and Form N-CSR for the funds at issue filed during the period January 1, 2002 to June 30, 2005 (these forms are filed twice annually, and each of them specifies the portfolio holdings and portfolio turnover rates of the relevant fund as of the date stated therein).

REQUEST FOR PRODUCTION NO. 50:

All documents and tangible things in your possession, custody, or control that concern, refer to, or address the investment performance or returns of any of The Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 50:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense. As drafted, this request seeks any document relating in any way to the performance of each of the funds at issue in this case, over an unlimited period of time; that request is patently unreasonable.

Subject to and without waiving the foregoing objections, Defendants will produce all Form 485s, Form N-30Ds, and Form N-CSRs for the funds at issue filed during the period January 1, 2002 to June 30, 2005; Defendants will also produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005 (including the "black books" collecting information relevant to the trustees' review of management and distribution fees). Defendants will also produce, for the same period of time, (i) the monthly PIM updates to the Trustees Investment Oversight Committees concerning investment performance of the funds at issue, and (ii) information produced by PIM to the Trustees' Investment Oversight Committees in connection with the trustees' periodic additional reviews of the performance of particular funds, to the extent such review related to the funds at issue.

REQUEST FOR PRODUCTION NO. 55:

All documents and tangible things in your possession, custody, or control sufficient to establish the amounts of Putnam-related compensation of any type (including cash and non-cash forms of compensation) earned or received by each of the members of the Investment

Management Teams and the Boards of Trustees for each of the Funds at any and all times from January 1, 2002 to the present.

RESPONSE TO REQUEST FOR PRODUCTION NO. 55:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence. For example, it is inappropriate and inefficient for Plaintiffs to seek the type of information at issue through a sweeping document request for "[a]ll documents...sufficient to establish" that information; an interrogatory is the proper device for such information, and then only to the extent the information is properly discoverable. Further, there is no basis for Plaintiffs to demand (as they appear to demand) information concerning compensation on a person-by-person basis.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the "black books" collecting information relevant to the trustees' review of management and distribution fees, and Defendant will also produce all Form 485s for the funds at issue filed during the period January 1, 2002 to June 30, 2005. (Both categories of documents contain information responsive to this request.)

REQUEST FOR PRODUCTION NO. 56:

All documents and tangible things in your possession, custody, or control that reflect, concern, refer, or relate to any decision or agreement made by PIM and/or PRM effective as of January 1, 2004 to cease directing brokerage to broker-dealers in connection with the sale of fund shares.

RESPONSE TO REQUEST FOR PRODUCTION NO. 56:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

Subject to and without waiving the foregoing objections, and only subject to an appropriate confidentiality order, Defendants will produce January 1, 2002-to-June 30, 2005 communications about the referenced decision between one or both of the Defendants, on the one hand, and the trustees, on the other hand, to the extent located after diligent search.

REQUEST FOR PRODUCTION NO. 58:

All documents and tangible things in your possession, custody, or control that constitute, reflect, or concern any investment policies, investment objectives, investment classifications, and/or investment restrictions applicable to each of The Funds at any and all times during the Damages Period.

RESPONSE TO REQUEST FOR PRODUCTION NO. 58:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

Subject to and without waiving the foregoing objections, Defendants will produce the Form 485s for each of the funds at issue filed during the period January 1, 2002 to June 30, 2005 (which contain detailed information concerning each fund's investment objectives and strategies).

REQUEST FOR PRODUCTION NO. 75:

All documents and tangible things in your possession, custody, or control that constitute, reflect, concern, refer, or relate to any negotiations, bargaining, or communications relative to

any actual or proposed Management Fees, Management Contracts, 12b-1 Fees, or Distribution Plans among or between PIM, PRM, or other affiliated Putnam entities, and any of the Boards of Trustees, or their Boards of Trustees Committees, for any of The Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 75:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the "black books" collecting information relevant to the trustees' review of management and distribution fees. Defendants will also produce the minutes referenced in their response to Request No. 72.

REQUEST FOR PRODUCTION NO. 76:

All documents and tangible things in your possession, custody, or control that reflect, concern, refer, or relate to any consideration given by any of the Boards of Trustees, or their Boards of Trustees Committees, to the issue of whether or not to approve any actual or proposed Management Contract or Distribution Plan for any of The Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 76:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

Subject to and without waiving the foregoing objections, and only under an appropriate

confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005, including the "black books" collecting information relevant to the trustees' review of management and distribution fees. Defendants will also produce the minutes referenced in their response to Request No. 72.

REQUEST FOR PRODUCTION NO. 131:

All documents and tangible things in your possession, custody, or control that constitute or summarize records of the daily purchases and sales of securities made on behalf of each of The Funds at any and all times during the Damages Period.

RESPONSE TO REQUEST FOR PRODUCTION NO. 131:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, and, to an extreme degree, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense. As drafted, this request seeks a massive volume of documents (including but not limited to daily trading records for a multi-year period for all funds at issue), without any showing by plaintiffs as to the relevance of the information contained in such documents, or as to their need to obtain whatever information they seek by this request by some less burdensome means.

Subject to and without waiving the foregoing objections, Defendants will produce all Form N30Ds and Form N-CSRs for the funds at issue filed during the period January 1, 2002 to June 30, 2005 (these forms are filed twice annually, and each of them specifies the portfolio holdings and portfolio turnover rates of the relevant fund as of the date stated therein).

b. Plaintiffs' Position

These responses are deficient because Putnam refuses to provide all responsive documents, including internal documents. Plaintiffs refer the Court to pages 11-14 in Plaintiffs' Memorandum for a discussion about Putnam's failure to produce internal documents.

4. Putnam Must Produce Full and Complete Financial Information.

In its responses to the following requests, Putnam refuses to provide the requested financial information.

a. The Requests and Responses

REQUEST FOR PRODUCTION NO. 29:

All documents and tangible things in your possession, custody, or control that constitute or concern any annual financial statements (audited and unaudited) of PIM, PRM, or any of The Funds covering any and all times from January 1, 2000 to the present including, but not limited to, income statements; balance sheets; statements of cash flows; statements of operations; all footnotes relating thereto; all cost allocation policies or procedures relating thereto; and all underlying source materials, supporting materials, and back-up materials considered or relied upon in generating such documents, including ledgers and sub-ledgers.

RESPONSE TO REQUEST FOR PRODUCTION NO. 29:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense, particularly in its demand for all documents that "concern" annual financial statements. Defendants further object to this request to the extent that it seeks publicly-available documents.

Subject to and without waiving the foregoing objections, Defendants will produce, as to

each of the funds at issue, all Form 485s, Form N-30Ds, and Form N-CSRs filed in the period January 1, 2002 to June 30, 2005. As to PIM and PRM, Defendants will also produce, only under an appropriate confidentiality order, the Putnam financial statements contained in the "black books" provided to the trustees during the period January 1, 2002 to June 30, 2005. Defendants will also produce, only under an appropriate confidentiality order, the trial balance entries as to the consolidated Putnam results, and as to (individually) PIM, PRM, and PFTC, for years 2001, 2002, 2003, and 2004.

REQUEST FOR PRODUCTION NO. 30:

All documents and tangible things in your possession, custody, or control that constitute or concern any monthly or quarterly financial statements (audited and unaudited) of PIM, PRM, or any of The Funds covering any and all times during the Damages Period including, but not limited to, income statements; balance sheets; statements of cash flows; statements of operations; all footnotes relating thereto; all cost allocation policies or procedures relating thereto; and all underlying source materials, supporting materials, and back-up materials considered or relied upon in generating such documents, including ledgers and sub-ledgers.

RESPONSE TO REQUEST FOR PRODUCTION NO. 30:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense, particularly in its demand for all documents that "concern" monthly or quarterly financial statements.

Subject to and without waiving the foregoing objections, Defendants will produce the Form N-30D and Form N-CSRs during the period January 1, 2002 through June 30, 2005 (which contain financial statements and are filed on a semiannual basis). Defendants will also produce,

only under an appropriate confidentiality order, the trial balance entries as to the consolidated Putnam results, and as to (individually) PIM, PRM, and PFTC, for years 2001, 2002, 2003, and 2004.

REQUEST FOR PRODUCTION NO. 31:

All documents and tangible things in your possession, custody, or control that constitute or concern any annual financial statements (audited and unaudited) of any parent or affiliate entities whose financial results include the results of PIM or PRM covering any and all times from January 1, 2000 to the present including, but not limited to, income statements; balance sheets; statements of cash flows; statements of operations; all footnotes relating thereto; and all underlying source materials, supporting materials, and back-up materials considered or relied upon in generating such documents.

RESPONSE TO REQUEST FOR PRODUCTION NO. 31:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense, particularly in its demand for all documents that "concern" annual financial statements. Defendants further object to this request to the extent that it seeks publicly-available documents.

Subject to and without waiving the foregoing objections, Defendants will produce all Form 10-Ks for Marsh & McLennan Companies, Inc. filed during the period January 1, 2002 to June 30, 2005.

REQUEST FOR PRODUCTION NO. 32:

All documents and tangible things in your possession, custody, or control that constitute or concern any monthly or quarterly financial statements (audited and unaudited) of any parent

or affiliate entities whose financial results include the results of PIM or PRM covering any and all times during the Damages Period including, but not limited to, income statements; balance sheets; statements of cash flows; statements of operations; all footnotes relating thereto; and all underlying source materials, supporting materials, and back-up materials considered or relied upon in generating such documents.

RESPONSE TO REQUEST FOR PRODUCTION NO. 32:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense, particularly in its demand for all documents that "concern" monthly or quarterly financial statements. Defendants further object to this request to the extent that it seeks publicly available documents.

Subject to and without waiving the foregoing objections, Defendants will produce all Form 10-Qs for Marsh & McLennan Companies, Inc. filed during the period January 1, 2002 to June 30, 2005.

REQUEST FOR PRODUCTION NO. 64:

All documents and tangible things in your possession, custody, or control that constitute non-publicly issued financial reports prepared by, or on behalf of, any Putnam entity that concern or relate to the provision of management and/or investment advisory services to any of The Funds. Such financial reports might be expected to include, for example, calculations, assessments, itemizations, reviews, cost benefit analyses, or other summarizations of PIM's costs and expenses incurred, income and revenues received, and/or profits realized.

RESPONSE TO REQUEST FOR PRODUCTION NO. 64:

See General Objections, which are incorporated herein. Defendants further object to this

request on the basis that it is vague, and, to an extreme degree, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense. For example, it is not limited as to time, and its "limitation" as to subject matter -- reports that "concern or relate to the provision of management and/or investment advisory services" -- is vague and, in the context of this case, which involves entities that provide such services, essentially meaningless as a limitation.

Subject to and without waiving the foregoing objections, Defendants refer Plaintiffs to, and incorporate herein, their responses to Request Nos. 29, 30, 31, and 32.

REQUEST FOR PRODUCTION NO. 104:

All documents and tangible things in your possession, custody, or control relevant to establishing on an annualized basis relative to each of The Funds for each of the years of their experience: (i) their respective portfolio holdings; (ii) the amounts of their assets under management; (iii) the amounts of their Management Fees and 12b-1 Fees paid; (iv) their applicable fee schedules; (v) the costs, expenses, and expense ratios incurred by PIM, PRM, or other affiliated Putnam entities; and (vi) the profits and profit margins realized by PIM, PRM, or other affiliated Putnam entities.

RESPONSE TO REQUEST FOR PRODUCTION NO. 104:

See General Objections, which are incorporated herein. Defendants further object on this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense. Defendants further object to this request on the basis that it is duplicative of other requests, listed below, the objections to each of which Defendants incorporate herein by reference. Subject to and without waiving the foregoing objections, Defendants refer Plaintiffs to, and incorporate

herein by reference, their substantive responses to the following requests:

- As to subpart (i), Request Nos. 47, 48, 131;
- As to subpart (ii), Request Nos. 47, 48, 131;
- As to subpart (iii), Request Nos. 5, 6, 26, 54;
- As to subpart (iv), Request Nos. 94, 101, 102, 111;
- As to subpart (v), Request Nos. 7, 12, 25, 67, 85, 109; and
- As to subpart (vi), Request Nos. 6, 11, 20, 24, 27, 64, 66, 86, 111, 136, 138.

REQUEST FOR PRODUCTION NO. 120:

All documents and tangible things in your possession, custody, or control that constitute prospectuses for any of The Funds, including all supplements or amendments thereto, or that constitute computer databases serving as an underlying source of any financial information appearing in such prospectuses.

RESPONSE TO REQUEST FOR PRODUCTION NO. 120:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that, to the extent it seeks "computer databases serving as an underlying source of financial information appearing in" prospectuses, it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

Subject to and without waiving the foregoing objections, Defendants will produce all prospectuses for each fund filed during the time period January 1, 2002 to June 30, 2005.

REQUEST FOR PRODUCTION NO. 121:

All documents and tangible things in your possession, custody, or control that constitute

proxy statements for any of The Funds, including all supplements or amendments thereto, or that constitute computer databases serving as an underlying source of any financial information appearing in such prospectuses.

RESPONSE TO REQUEST FOR PRODUCTION NO. 121:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that, to the extent it seeks "computer databases serving as an underlying source of financial information appearing in such prospectuses," it is incoherent (the request otherwise refers to proxy statements), vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

Subject to and without waiving the foregoing objections, Defendants will produce proxy statements for each of the funds at issue filed during the period January 1, 2002 to June 30, 2005.

REQUEST FOR PRODUCTION NO. 122:

All documents and tangible things in your possession, custody, or control that constitute publicly issued annual, quarterly, semi-annual, or other periodic reports, or Statements of Additional Information, for any of The Funds, including all supplements or amendments thereto, or that constitute computer databases serving as an underlying source of any financial information appearing in such reports or statements.

RESPONSE TO REQUEST FOR PRODUCTION NO. 122:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is, to an absurd degree, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense; it seeks in substance all documents relating to all of the funds at issue that have ever

been publicly filed, and all "computer databases serving as an underlying source" for all of those documents. That is senseless.

REQUEST FOR PRODUCTION NO. 123:

All documents and tangible things in your possession, custody, or control that constitute internal financial reports that provide further detail or breakdowns for the line items contained in any publicly available financial report for any of The Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 123:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense. As drafted, it seeks, in substance, any "internal financial report" (a vague term), relating to any "line item" in any public report, for each of the funds at issue, without any restriction as to time, without any showing of relevance, that there is no way to obtain the desired information by some less burdensome, more practicable means. Subject to and without waiving the foregoing objections, Defendants refer to, and incorporate herein, their responses to Request Nos. 29, 41, 46, 50, 55, 58, and 115. Defendants will also produce, only under an appropriate confidentiality order, the trial balance entries as to the consolidated Putnam results, and as to (individually) PIM, PRM, and PFTC, for years 2001, 2002, 2003, and 2004.

REQUEST FOR PRODUCTION NO. 140:

All documents and tangible things in your possession, custody, or control constituting internal financial reports or analyses pertaining to PIM, PRM, or any of The Funds including, but not limited to, budgets, forecasts, and cost accounting reports.

RESPONSE TO REQUEST FOR PRODUCTION NO. 140:

See General Objections, which are incorporated herein. Defendants further object to this

request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense. Subject to and without waiving the foregoing objections, Defendants refer to, and incorporate herein, their responses to Request Nos. 29, 41, 46, 50, 55, 58, and 115.

b. Plaintiffs' Position

Putnam's responses are deficient because they refuse to produce any of the internal financial records, ledgers, sub-ledgers, allocations, budgets forecasts, cost accounting reports and financial databases that Plaintiffs need to unravel the true fees, costs and expenses attributable to the Funds and the profits to Putnam. This information is undeniably discoverable and must be produced. See Plaintiffs' Memorandum at page 14.

C. Putnam's Failure to Respond to the Entirety of Plaintiffs' Requests and Outright Refusals to Respond Cannot Stand.

In response to many requests, Putnam responds incompletely or flatly refuses to respond. Plaintiffs' position as to each of these improper responses immediately follows the subject request and response.

1. Putnam Must Produce All Non-Privileged Responsive Documents Concerning Excessive Fee Litigation and Investigations.

In the following requests, Plaintiffs seek documents concerning this action, and other fee-related litigation and government investigations. Putnam wrongly refuses to provide the requested information.

REQUEST FOR PRODUCTION NO. 42:

All documents and tangible things in your possession, custody, or control that concern, refer to, or address the existence, substance, merits, or outcomes of either of the Illinois Actions, the above-captioned action, or the Complaint filed herein.

RESPONSE TO REQUEST FOR PRODUCTION NO. 42:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense. Defendants further object to this request on the basis that it is squarely directed at information that is attorney-client privileged and/or attorney work product, much of which is communications between Defendants and undersigned counsel (including such communications in relation to this very lawsuit).

PLAINTIFFS' POSITION AS TO REQUEST NO. 42

This is a fair request for discoverable information about this action and the "Illinois Actions" (the Section 36(b) actions by Plaintiffs Kalbfleisch and former Plaintiff Wicks against Putnam previously filed in Illinois). Putnam clearly overreaches with this objection. It must commit to producing any non-privileged responsive documents, such as internal employee emails and communications concerning the litigation.

REQUEST FOR PRODUCTION NO. 112:

All documents and tangible things in your possession, custody, or control that concern, refer, or relate to any investigation by any governmental, administrative, or self-regulatory body regarding the propriety or amount of any fees charged to any of the Putnam Mutual Funds including, but not limited to, all documents produced in such investigations, all transcripts of testimony, and all communications with such governmental, administrative, or self-regulatory bodies concerning such investigations.

RESPONSE TO REQUEST FOR PRODUCTION NO. 112:

See General Objections, which are incorporated herein. Defendants further object to this

request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense, particularly in its demand for all documents relating to all investigations concerning "the propriety or amount of fees" (which would encompass investigations on topics unrelated to this suit), without any time limitation, or other subject matter limitation.

Subject to and without waiving the foregoing objections, Defendants will produce documents constituting communications between Defendants and the regulator(s) in connection with any investigation alleging excessive management and/or excessive 12b-1 fees during the period January 1, 2002 to June 30, 2005.

PLAINTIFFS' POSITION AS TO REQUEST NO. 112

Putnam inappropriately limits its production to communications between Putnam and the regulators in connection with excessive management or 12b-1 fee investigations. Putnam's response is incomplete in its attempt to limit the disclosure to communications and to excessive fees. Putnam should respond in full.

REQUEST FOR PRODUCTION NO. 113:

All documents and tangible things in your possession, custody, or control that concern, refer, or relate to any litigation, arbitration, or mediation proceedings involving PIM and/or PRM as parties that contained any allegation concerning excessive fees charged to any of the Putnam Mutual Funds including, but not limited to, complaints, orders, judgments and settlement agreements.

RESPONSE TO REQUEST FOR PRODUCTION NO. 113:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably

calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

PLAINTIFFS' POSITION AS TO REQUEST NO. 113

This request undeniably seeks discoverable information about other excessive fee litigation, and Putnam must respond.

2. Putnam Must Provide Documents Responsive to Plaintiffs' Requests Concerning its Policies, Practices or Procedures.

Putnam has refused to provide documents responsive to Plaintiffs legitimate requests concerning Putnam's policies, practices or procedures as follows.

REQUEST FOR PRODUCTION NO. 59:

All documents and tangible things in your possession, custody, or control that constitute, reflect or concern any policies relating to the practice of simultaneously servicing multiple accounts that have been applicable to any member of any Investment. Management Team for any of the Putnam Mutual Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 59:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague and ambiguous.

PLAINTIFFS' POSITION AS TO REQUEST NO. 59

This request is relevant under *Gartenberg* because it will help discover the nature and quality of the services Putnam provides, and the similarity of services provided to the Funds and institutional accounts. It will also help Plaintiffs unravel accounting issues as to how the salaries of these individuals are expensed. Plaintiffs contend the request is clear, and Putnam should respond.

REQUEST FOR PRODUCTION NO. 98:

All documents and tangible things in your possession, custody, or control that constitute, reflect, concern, refer, or relate to any policies, practices, or procedures that have been or may be followed by PIM, PRM, or other affiliated Putnam entities with regard to making disclosures to shareholders and/or to the public regarding any Management Fees and/or 12b-1 Fees charged to any Putnam Mutual Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 98:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

PLAINTIFFS' POSITION AS TO REQUEST NO. 98

Plaintiffs see nothing vague about the request. A request for Putnam's policies concerning fee disclosures in this excessive-fee case is entirely appropriate.

REQUEST FOR PRODUCTION NO. 106:

All documents and tangible things in your possession, custody, or control that constitute, reflect, concern, refer, or relate to any policies, practices, or procedures applicable to, and or adopted or followed by, PIM with respect to seeking and obtaining the most favorable prices and execution of trades on behalf of any of the Putnam Mutual Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 106:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense, particularly in its use of the words "reflect," "concern," "refer" or "relate." It is not sensible to ask PIM and PRM for, in effect, "all documents relating to best execution," which is a fundamental

part of their day-to-day business, implicating a sweeping array of individuals and documents (even day-to-day trading records). Such a request, like many others, improperly seeks to shift the burden to Defendants to identify particular categories of documents that Plaintiffs might find useful in attempting to prove their claims, when Plaintiffs are obligated to develop and articulate those categories themselves (and are capable of doing so). As with other areas of inquiry identified in plaintiffs' requests, Defendants would respond, as appropriate, to a more narrowly-tailored, specifically-articulated request or set of requests concerning best execution.

PLAINTIFFS' POSITION AS TO REQUEST NO. 106

This request properly seeks information relevant to the nature and quality of services Putnam provides, as well as the fall-out benefits it receives. Putnam must respond.

REQUEST FOR PRODUCTION NO. 110:

All documents and tangible things in your possession, custody, or control that concern, refer, or relate to the issues of if, how, whether, or to what extent the Management Fees and/or the 12b-1 Fees charged by PIM, PRM, or other affiliated Putnam entities have been or should be made transparent to actual or potential shareholders in any of the Putnam Mutual Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 110:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it assumes, contrary to evidence, that fees are not clearly disclosed to shareholders and potential shareholders. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense. The existing disclosures speak for themselves and are readily available to Plaintiffs; there is no basis in this case for discovery into internal communications about them.

PLAINTIFFS' POSITION AS TO REQUEST NO. 110

Plaintiffs see nothing vague about the request. Documents concerning whether the fees Putnam charges have been or should be made transparent to actual or potential shareholders are discoverable in this excessive-fee case.

3. Putnam Must Respond Fully and Completely Where It Has Not.

In response to the following requests, Putnam wrongfully fails to respond, either in whole or in part.

REQUEST FOR PRODUCTION NO. 35:

All documents and tangible things in your possession, custody, or control that constitute, reflect, concern, refer, or relate to any explanations, characterizations, or descriptions of the activities that each of the Investment Management Teams perform for each of The Funds in connection with furnishing them with investment programs and/or making investment decisions for them about what securities shall be purchased, held, sold, or exchanged.

RESPONSE TO REQUEST FOR PRODUCTION NO. 35:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense. Defendants further object to this request on the basis that it is improper, and inefficient, to seek the information at issue (specification of the responsibilities and activities of investment personnel) through a sweeping document request; interrogatories or depositions are the proper device for such information, and then only to the extent the information is properly discoverable.

Subject to and without waiving the foregoing objections, Defendants will produce the management contracts applicable to the funds at issue during the period January 1, 2002 to present, and the prospectuses for the funds at issue for that same period.

PLAINTIFFS' POSITION AS TO REQUEST NO. 35

The requested information is relevant to the nature and quality of the services PIM provides to the Funds, and is especially material to Plaintiffs' challenge to the portfolio selection component of the management fees. This is a proper subject for document discovery, and Putnam must respond.

REQUEST FOR PRODUCTION NO. 44:

All documents and tangible things in your possession, custody, or control that concern, refer to, or address the issues of if; whether, how, or to what extent PIM has complied, should comply, or may comply with any of the requirements or standards imposed by Section 36(b) of the Investment Company Act of 1940, 15 U.S.C. § 80a-35(b).

RESPONSE TO REQUEST FOR PRODUCTION NO. 44:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense, particularly in its demand for all documents that "concern" the requirements and standards of 15 U.S.C. § 80a-35(b), which is an improper effort to shift to the Defendants the Plaintiffs' burden of identifying specific categories of documents relevant to their claims and theories.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005 (including the "black books" collecting information relevant to the trustees' review of management and distribution fees), as well as Operations Finance Department documents relating to those communications (including e-mail concerning preparation of such

communications, and data generated or reviewed in connection with such communications).

Defendants will also produce, to the extent located after diligent search (and to the extent not privileged), all documents generated during the period January 1, 2002 to June 30, 2005 addressing the requirements of 15 U.S.C. § 80a-35(b).

REQUEST FOR PRODUCTION NO. 45:

All documents and tangible things in your possession, custody, or control that concern, refer to, or address the issues of if, whether, how, or to what extent PRM, other affiliated Putnam entities, and/or any of the Distribution Plans adopted by any of the Putnam Mutual Funds has complied, should comply, or may comply with any of the requirements or standards imposed by Rule 12b-1 of the Investment Company Act of 1940, 15 U.S.C. § 80a-12(b), 17 C.F.R. § 270.12b-1.

RESPONSE TO REQUEST FOR PRODUCTION NO. 45:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense, particularly in its demand for all documents that "concern" the requirements or standards imposed by 15 U.S.C. § 80a-12(b), 17 C.F.R. § 270.12b-1, which is an improper effort to shift to the Defendants the Plaintiffs' burden of identifying specific categories of documents relevant to their claims and theories.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, their fee-related communications with the trustees during the period January 1, 2002 to June 30, 2005 (including the "black books" collecting information relevant to the trustees' review of management and distribution fees), as well as Operations Finance Department documents

relating to those communications (including e-mail concerning preparation of such communications, and data generated or reviewed in connection with such communications). Defendants will also produce, to the extent located after diligent search (and to the extent not privileged), all documents generated during the period January 1, 2002 to June 30, 2005 addressing the requirements of Rule 12b-1 of the Investment Company Act of 1940, 15 U.S.C. § 80a-12(b), 17 C.F.R. §270.12b-1.

PLAINTIFFS' POSITION AS TO REQUEST NOS. 44 and 45

Request Nos. 44 and 45 seek documents concerning whether, how, or to what extent Putnam has complied, should comply, or may comply with the requirements of Section 36(b) and Rule 12b-1. Putnam's responses are deficient because their agreement to produce documents *addressing* the requirements of those laws does not respond to the requests posed. Putnam must produce documents that address, among other things, whether Putnam has complied with the legal requirements. This production must include internal documents.

REQUEST FOR PRODUCTION NO. 68:

All documents and tangible things in your possession, custody, or control relevant to establishing what other persons or entities were paid monies, and in what amounts, by PIM and/or PRM in connection with their provision of services to The Funds at any and all times during the Damages Period.

RESPONSE TO REQUEST FOR PRODUCTION NO. 68:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague and ambiguous; read literally, it appears to seek all documents in any way relevant to establishing the identity of every third party to which Defendants have made any payment at any time during the "Damages Period." If that is what this request seeks, it is senseless, and insupportable; if the request seeks something else, Defendants

cannot determine what that is, on the basis of the text of the request, as drafted.

PLAINTIFFS' POSITION AS TO REQUEST NO. 68

This request is clear, and is relevant to the issues of Putnam's costs, expenses and profits. Putnam must respond.

REQUEST FOR PRODUCTION NO. 101:

All documents and tangible things in your possession, custody, or control that constitute, reflect, concern, refer, or relate to each of the fee schedules for Management Fees and/or for 12b-1 Fees that PIM, PRM, or other affiliated Putnam entities have proposed or furnished to each of The Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 101:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense; all documents that "refer" or "relate" to fee schedules is a category that is difficult to understand, and, read literally, sweepingly overbroad (it appears to call for every document in any way relating to fees).

Subject to and without waiving the foregoing objections, Defendants will produce the fee schedules applicable to each of the funds at issue during the period May 18, 2003 through June 30, 2005.

PLAINTIFFS' POSITION AS TO REQUEST NO. 101

Putnam must provide documents that concern or refer to the fee schedules, such as internal documents analyzing, commenting or discussing the fee schedules.

REQUEST FOR PRODUCTION NO. 104:

All documents and tangible things in your possession, custody, or control relevant to

establishing on an annualized basis relative to each of The Funds for each of the years of their existence: (i) their respective portfolio holdings; (ii) the amounts of their assets under management; (iii) the amounts of their Management Fees and 12b-1 Fees paid; (iv) their applicable fee schedules; (v) the costs, expenses, and expense ratios incurred by PIM, PRM, or other affiliated Putnam entities; and (vi) the profits and profit margins realized by PIM, PRM, or other affiliated Putnam entities.

RESPONSE TO REQUEST FOR PRODUCTION NO. 104:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense. Defendants further object to this request on the basis that it is duplicative of other requests, listed below, the objections to each of which Defendants incorporate herein by reference. Subject to and without waiving the foregoing objections, Defendants refer Plaintiffs to, and incorporate herein by reference, their substantive responses to the following requests:

- As to subpart (i), Request Nos. 47, 48, 131;
- As to subpart (ii), Request Nos. 47, 48, 131;
- As to subpart (iii), Request Nos. 5, 6, 26, 54;
- As to subpart (iv), Request Nos. 94, 101, 102, 111;
- As to subpart (v), Request Nos. 7, 12, 25, 67, 85, 109; and
- As to subpart (vi), Request Nos. 6, 11, 20, 24, 27, 64, 66, 86, 111, 136, 138.

PLAINTIFFS' POSITION AS TO REQUEST NO. 104

This request seeks information relevant to the core of Plaintiffs' Complaint, including

economies of scale, fee structures and Putnam's profits. This request undeniably seeks discoverable information that, while may be responsive to some other requests as well, is not duplicative. To the extent that Putnam believes it is producing responsive information in connection with other responses, it must provide all of the information sought in Request No. 104 (1) as to each Fund (*i.e.* not consolidated amounts) (2) on an annualized basis, and (3) from January 1, 1995 to the present. Anything less is not responsive.

REQUEST FOR PRODUCTION NO. 108:

All documents and tangible things in your possession, custody, or control that concern, refer, or relate to the issues of if, how, whether, or to what extent any conflicts of interests do or may exist between PIM, PRM, or other affiliated Putnam entities on the one hand, and any of the Putnam Mutual Funds and/or their shareholders on the other hand.

RESPONSE TO REQUEST FOR PRODUCTION NO. 108:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense; for example, all documents that "concern" or "relate" to "whether" there are conflicts of interest between any Putnam entities and the funds or shareholders is a vague and overbroad category, which in effect purports to place on Defendants the burden of making subjective judgments as to which categories of documents might bear on such matters.

PLAINTIFFS' POSITION AS TO REQUEST NO. 108

Conflicts of interest between Putnam and the Funds is a relevant subject for discovery. Moreover, there is nothing vague about this request. Having been sanctioned by the SEC twice in the recent past for failing to disclose to the Trustees potential conflicts of interest, Putnam should certainly be in a position to identify responsive documents. This production should include any

documents that address conflicts of interest between Putnam and the Funds, including any internal documents.

REQUEST FOR PRODUCTION NO. 118:

All documents and tangible things in your possession, custody, or control that constitute resumes, curriculum vitae or other documents containing the professional and working history for anyone who served as an officer, Trustee, or member of any of the Investment Management Teams for any of The Funds at any and all times during the Damages Period.

RESPONSE TO REQUEST FOR PRODUCTION NO. 118:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that, to the extent it seeks information concerning trustees, it is properly directed to counsel for the trustees. Defendants otherwise object to this request on the basis that it is overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

PLAINTIFFS' POSITION AS TO REQUEST NO. 118

Putnam's objection is without merit. This request seeks documents relevant to the quality of the investment services provided to the Funds. Putnam must respond.

REQUEST FOR PRODUCTION NO. 129:

All documents and tangible things in your possession, custody, or control that reflect, concern, refer, or relate to any securities clearing relationship between PIM, PRM, and any other person or entity.

RESPONSE TO REQUEST FOR PRODUCTION NO. 129:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague and ambiguous.

PLAINTIFFS' POSITION AS TO REQUEST NO. 129

This request asks for documents concerning securities clearing relationships between Putnam and any other entity. The requested information is relevant to fall-out benefits, and Putnam should respond.

REQUEST FOR PRODUCTION NO. 132:

All documents and tangible things in your possession, custody, or control that constitute, reflect, concern, refer, or relate to any legal, accounting, financial, compliance, or other audits (whether internal or external) relating to any of The Funds including, but not limited to, any opinion letters of professionals such as attorneys or accountants, and/or any information or materials provided to any auditor relating to Management Fees and/or 12b-1 Fees.

RESPONSE TO REQUEST FOR PRODUCTION NO. 132:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

PLAINTIFFS' POSITION AS TO REQUEST NO. 132

This is a clear request seeking highly relevant information about the Funds and fees. Putnam's objection is without merit.

REQUEST FOR PRODUCTION NO. 136:

All documents and tangible things in your possession, custody, or control that constitute, reflect, concern, refer, or relate any practices, contracts, or agreements by which securities owned by or on behalf of any of The Funds are loaned to any other person or entity, including documents relevant to establishing the amount of profits realized as the result of such loans.

RESPONSE TO REQUEST FOR PRODUCTION NO. 136:

See General Objections, which are incorporated herein. Defendants further object to this

request on the basis that, to the extent they can speculate as to its meaning, it is overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

Subject to and without waiving the foregoing objections, and only under an appropriate confidentiality order, Defendants will produce, to the extent located after diligent search, any securities lending agreement involving the funds at issue in effect during the period January 1, 2002 to June 30, 2005.

PLAINTIFFS' POSITION AS TO REQUEST NO. 136

Putnam's response is deficient in that it refuses to produce related documents, *i.e.* internal documents concerning the securities lending agreements. Putnam also refuses to produce documents to establish the amounts of profits it realized thereon. This information is relevant to Putnam's fall-out benefits and must be provided.

REQUEST FOR PRODUCTION NO. 137:

All documents and tangible things in your possession, custody, or control that constitute, reflect, concern, refer, or relate to communications to or from shareholders of any of The Funds concerning Management Fees and/or 12b-1 Fees charged to The Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 137:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense (including in its demand for communications from shareholders concerning management and/or 12b-1 fees, which are patently irrelevant).

Subject to and without waiving the foregoing objections, Defendants will produce all

Form 485s (which include prospectuses), and all Form N-30Ds and Form N-CSRs, for the funds at issue filed during the period January 1, 2002 to June 30, 2005. Defendants will also produce any complaints received from shareholders during the period January 1, 2002 through June 30, 2005 concerning management and/or 12b-1 fees.

PLAINTIFFS' POSITION AS TO REQUEST NO. 137

This is obviously a discoverable category of documents, yet Putnam agrees to produce only public filings and "complaints" from shareholders about the fees. This request properly encompasses more, such as communications other than complaints and internal documents that concern or refer to the communications. Putnam should respond in full.

REQUEST FOR PRODUCTION NO. 139:

All documents and tangible things in your possession, custody, or control that constitute, reflect, concern, or refer or relate to marketing and/or sales plans for any of The Funds.

RESPONSE TO REQUEST FOR PRODUCTION NO. 139:

See General Objections, which are incorporated herein. Defendants further object to this request on the basis that it is vague, overly broad, unduly burdensome, and not reasonably calculated to lead to the discovery of admissible evidence relevant to any claim or defense.

PLAINTIFFS' POSITION AS TO REQUEST NO. 139

The request seeks relevant documents addressing the appropriateness of the 12b-1 fees, which are for fund marketing and distribution. Putnam must provide responsive documents.

Dated: April 27, 2006

Respectfully submitted,

/s/ David E. Marder

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that on April 27, 2006, a true copy of the Appendix To Plaintiffs' Memorandum in Support of Motion To Compel Defendants To Respond To Plaintiffs' First Set of Requests For The Production of Documents was served electronically through the ECF System and by first class mail, postage prepaid, to those counsel of record indicated as non-registered ECF participants.

/s/ Lisa A. Furnald

Lisa A. Furnald